Finance and Administration Services Department
PURCHASING DIVISION
115 S. Andrews Avenue, Room 212, Fort Lauderdale, Florida 33301 | 954-357-6066 | FAX 954-357-8535 | broward.org/Purchasing
Hours of Operation: Monday through Friday 8:30 a.m. to 5:00 p.m.

ADDENDUM NO. 3

Solicitation No.: V1197409B1
Solicitation Title: Commuter Coaches 45-Foot (NSM)

Date Of Addendum: March 5, 2014

Attention all potential bidders:

☐ Must Addendum: Read carefully and follow all instructions. Information included in this Addendum will have a material impact on the submittal for this solicitation. All "MUST" *addenda and/or revised Bid Sheets* are considered a matter of responsiveness. "MUST" addenda must be returned with your Bid submittal or acknowledged on the Bid Sheet Form. All revised Bid Sheets must be returned with your Bid submittal. Failure of a Submitter to or acknowledge the addenda and/or return the revised Bid Sheets shall be cause for rejection of the bid.

☐ Return Addendum with Bid submittal or Acknowledge on the Bid Sheet
☐ Return Completed Revised Price Sheet with Bid submittal
☐ Other: _____

To all prospective bidders, please note the following changes and clarifications: Words in ~~strikethrough~~ type are deletions from existing text. Words in **bold underlined** type are additions to existing text.

1. The Bid Opening Date remains as **March 12, 2014** at 2:00 p.m.

2. The Bid Sheets have been revised and copies are attached. Note the increased maximum quantity of Bid Item 54 - Coaches Optional Year Two; from six to nine.
These revised bid sheets "MUST" be completed and returned with your Bid submittal. The electronic version of the Revised Bid Sheets is available at
http://www.broward.org/Purchasing/Pages/CurrentSolicitationList.aspx

3. Attached to this Addendum are Broward County's responses to the Requests for Reconsideration of Requests for Approved Equals. Bidders are advised to read each Request and corresponding response to be aware of any changes to the bid requirements.

All other terms, conditions and specifications remain unchanged for this bid.

NAME OF COMPANY: _____

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries Inc.

Contact Name/Title: Mark Reuter Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS1 **Bid Page No.** 92 **Bid Reference Specification No.** TS.7.6.5.1

Bid specification Requirement:

" All motors shall be brushless."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries

Model No./Product: Brushless motors

Description of product offered for approved equal:
MCI once again requests approval to provide our standard brushless evaporator, condenser motors. Defroster, windshield wiper and washer coolant pump, and parcel rack evaporator motors are permanent magnet motors.

MCI cannot provide brushless motors at the above locations without significant air flow testing etc. Approval of this request will allow MCI to submit a responsive proposal.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved
Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries Inc.

Contact Name/Title: Mark Reuter Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS2 **Bid Page No.** 96-107 **Bid Reference Specification No.** TS7.8-TS8.5

Bid specification Requirement:

Request for Approved Equal:

Manufacturer Offered: ISR CAD AVL AND RADIO SYSTEM

Model No./Product:

Description of product offered for approved equal:
MCI is interested in meeting the electronic requirements as specified. However, we have had no previous experience with ISR as a result our proposal will be based on the following. MCI will have ISR do the entire installation at our facility in North Dakota. Broward County can inspect the final installation prior to delivery. All commissioning and testing required at Broward County after delivery will be conducted by ISR.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only **CLARIFICATION**
Broward County Response: [X] Approved [ ] Not Approved

Reasons: All commissioning and testing required at Broward County after delivery will be conducted by ISR and BCT.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries Inc.

Contact Name/Title: Mark Reuter Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR8 **Bid Page No.** 113 **Bid Reference Specification No.** WR 2.2

Bid specification Requirement:

" BCT reserves the right to charge $200.00 per calendar day, per coach for all failures…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries

Model No./Product: Warranty

Description of product offered for approved equal:
MCI once again requests that the requirement for liquidating damages for failure to correct a warranty defect in five days be deleted. Although every effort will be made to expedite all warranty related defects,

MCI cannot accept any liquidated damages for warranty related issues.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

A Service of the Broward County Board of County Commissioners
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Addendum No. 3

REVISED Electronic Bid Pricing Sheet(s)

BROWARD COUNTY FLORIDA Purchasing Division www.broward.org/purchasing

Bid No.: V1197409B1
Bid Title: Commuter Coaches, 45-Foot
Using Agency: Transit Division
Purchasing Agent: Christine Calhoun

Basis of Award: This is a Group Award. A bidder must bid on all items within a Group to qualify for award of that Group, including items listed as "optional" or "renewal".
For the Group, the low bid will be determined by the Total Extended Price of the base bus for the initial one-year term.
The evaluation and award will be based on the Total Extended Price of the base bus as well as the optional/renewal items for the Group.
All prices will be part of the evaluation criteria and considered as a basis for award. Unbalanced, unfair, or unreasonable pricing may be reason for rejection of the bid.
The Minimum Quantity for all items is zero for the initial and, if exercised, optional renewal period.
During the initial term of the contract and any exercised renewal period, subject to the availability of funds, the County reserves the right to order up to the Maximum Quantity for the Group or order none within the Group depending on the availability of funds.

Note: Complete ALL of the highlighted cells; unit prices entered will automatically calculate the total prices and total bid price. Refer to the Special Instructions to Bidders, Bid Sheet for further instructions. Unit prices provided are to be no more than two (2) decimal places.

		Name of Bidder:			
		Address of Bidder:			
		Address of Bidder:			
Item No.	**Commodity Code(s) 55615 Description**	**Maximum Quantity (Per each 1-yr term)**	**Unit of Measure**	**Unit Price**	**Total Extended Price**
Group 1: Commuter Coach, Spare Components, Training, Manuals, Inspection Travel, Technical Upgrades					
	Year One (Initial Term)				
1	Commuter Coach (Single Door), 45-Foot (approximately), High Floor, Diesel Powered.	5	EA		$ -
	Optional Items: Year One				
2	Bus Inspection Travel	1	EA		$ -
3	Technical Upgrades Contingency	1	ALL		$ 192,802.50
	Spare Components				
4	Complete Power Plant	1	EA		$ -
5	Transmission	1	EA		$ -
6	Starter	1	EA		$ -
7	Complete WheelChair Lift Assembly	1	EA		$ -
8	Complete (3 Piece) Destination Sign System	1	EA		$ -
9	Complete Driver Seat Assembly	1	EA		$ -
10	Complete Radiator/Cooling System	1	EA		$ -
11	RH Windshield	2	EA		$ -
12	LH Windshield	2	EA		$ -
13	HVAC Drive Motor (Generator)	2	EA		$ -
14	HVAC Inverter	2	EA		$ -
15	Complete Set of Body Glass	1	EA		$ -
16	Front Body Cap (minus Windshield)	1	EA		$ -
17	Complete set of Entrance Doors	1	EA		$ -
18	GFI Odyssey Farebox	1	EA		$ -
19	Central Log On Unit	1	EA		$ -
20	Toughbook Shop Laptop Computer	3	EA		$ -
21	Camera Hard Drive	1	EA		$ -
22	Outside Body Camera	5	EA		$ -
	Training				
23	Train the Trainer (Operations)	16	HR		$ -
24	Optional Technical Training	240	HR		$ -
25	Power Plant Training by Component Manufacturer	40	HR		$ -
26	Fuel System Training by Component Manufacturer	16	HR		$ -
27	HVAC System Training by Component Manufacturer	40	HR		$ -
28	Body, Chassis, Suspension, Door, Axles, Tires	24	HR		$ -
29	Electrical/Electronics	40	HR		$ -
30	Brake System	48	HR		$ -
31	Wheelchair Lift	8	HR		$ -
32	Destination Signs	8	HR		$ -
33	OEM Facility Training/Engine (2 Students/5day)	2	EA		$ -
34	OEM Facility Training/Farebox (2 Students/5day)	2	EA		$ -
35	OEM Facility Training/Trans. (2 Students/5 day)	2	EA		$ -
36	CD ROM of All Lesson Plans	4	EA		$ -

Page 1 of 3

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Addendum No. 3

REVISED Electronic Bid Pricing Sheet(s)

Bid No.: V1197409B1
Bid Title: Commuter Coaches, 45-Foot
Using Agency: Transit Division
Purchasing Agent: Christine Calhoun

BROWARD COUNTY FLORIDA Purchasing Division www.broward.org/purchasing

	Manuals				
37	Vehicle Service/Maintenance Manuals	5	EA		$ -
38	Shop Level Engine Repair Manual	5	EA		$ -
39	Shop Level Transmission Repair Manual	5	EA		$ -
40	As Built Electrical Schematics	5	EA		$ -
41	As Built Electronic Schematics	5	EA		$ -
42	As Built Air System Schematics	5	EA		$ -
43	As Built Parts Manuals	5	EA		$ -
44	Parts Cross Reference Manuals	5	EA		$ -
45	OEM Engine Manual	5	EA		$ -
46	OEM Transmission Manual	5	EA		$ -
47	OEM Destination Sign Manual	5	EA		$ -
48	OEM Wheelchair Lift Manual	5	EA		$ -
49	OEM HVAC Manual	5	EA		$ -
51	Flat Rate Manual to Cover Each Element of Vehicle Maintenance	5	EA		$ -
52	As Built Operator Hand Book	10	EA		$ -
53	All Manuals Noted Above On a CD	5	EA		$ -
	Year Two (Optional Renewal Term)				
54	Commuter Coach (Single Door), 45-Foot (approximately), High Floor, Diesel Powered.	9	EA		
	Optional Items:				
55	Bus Inspection Travel				
56	Technical Upgrades Contingency	1	ALL		$ 192,802.50
	Spare Components				
57	Complete Power Plant	1	EA		$ -
58	Transmission	1	EA		$ -
59	Starter	2	EA		$ -
60	Complete WheelChair Lift Assembly	1	EA		$ -
61	Complete (3 Piece) Destination Sign System	1	EA		$ -
62	Complete Driver Seat Assembly	1	EA		$ -
63	Complete Radiator/Cooling System	1	EA		$ -
64	RH Windshield	2	EA		$ -
65	LH Windshield	2	EA		$ -
66	HVAC Drive Motor (Generator)	2	EA		$ -
67	HVAC Inverter	2	EA		$ -
68	Complete Set of Body Glass	1	EA		$ -
69	Front Body Cap (minus Windshield)	1	EA		$ -
70	Complete set of Entrance Doors	1	EA		$ -
71	GFI Odyssey Farebox	1	EA		$ -
72	Central Log On Unit	1	EA		$ -
73	Toughbook Shop Laptop Computer	3	EA		$ -
74	Camera Hard Drive	1	EA		$ -
75	Outside Body Camera	5	EA		$ -
	Training				
76	Train the Trainer (Operations)	16	HR		$ -
77	Optional Technical Training	240	HR		$ -
78	Power Plant Training by Component Manufacturer	40	HR		$ -
79	Fuel System Training by Component Manufacturer	16	HR		$ -
80	HVAC System Training by Component Manufacturer	40	HR		$ -
81	Body, Chassis, Suspension, Door, Axles, Tires	24	HR		$ -
82	Electrical/Electronics	40	HR		$ -
83	Brake System	48	HR		$ -
84	Wheelchair Lift	8	HR		$ -
85	Destination Signs	8	HR		$ -
86	OEM Facility Training/Engine (2 Students/5day)	2	EA		$ -
87	OEM Facility Training/Farebox (2 Students/5day)	2	EA		$ -
88	OEM Facility Training/Trans. (2 Students/5 day)	2	EA		$ -
89	CD ROM of All Lesson Plans	4	EA		$ -

Page 2 of 3

A Service of the Broward County Board of County Commissioners
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Addendum No. 3

REVISED Electronic Bid Pricing Sheet(s)

Bid No.: V1197409B1
Bid Title: Commuter Coaches, 45-Foot
Using Agency: Transit Division
Purchasing Agent: Christine Calhoun

BROWARD COUNTY FLORIDA Purchasing Division www.broward.org/purchasing

	Manuals				
90	Vehicle Service/Maintenance Manuals	5	EA		$ -
91	Shop Level Engine Repair Manual	5	EA		$ -
92	Shop Level Transmission Repair Manual	5	EA		$ -
93	As Built Electrical Schematics	5	EA		$ -
94	As Built Electronic Schematics	5	EA		$ -
95	As Built Air System Schematics	5	EA		$ -
96	As Built Parts Manuals	5	EA		$ -
97	Parts Cross Reference Manuals	5	EA		$ -
98	OEM Engine Manual	5	EA		$ -
99	OEM Transmission Manual	5	EA		$ -
100	OEM Destination Sign Manual	5	EA		$ -
101	OEM Wheelchair Lift Manual	5	EA		$ -
102	OEM HVAC Manual	5	EA		$ -
104	Flat Rate Manual to Cover Each Element of Vehicle Maintenance	5	EA		$ -
105	As Built Operator Hand Book	10	EA		$ -
106	All Manuals Noted Above On a CD	5	EA		$ -
	Total all Items				**$ 385,605.00**

Abbreviations: ALL = Allowance EA = Each HR = Hour

DATE PREPARED: _____

PREPARED BY (NAME OF PREPARER): _____

NAME OF COMPANY: _____

AUTHORIZED SIGNATURE: _____

By signing this bid pricing sheet, your firm is agreeing to the terms and conditions of this bid.

Page 3 of 3

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Finance and Administration Services Department
PURCHASING DIVISION
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Hours of Operation: Monday through Friday 8:30 a.m. to 5:00 p.m.

ADDENDUM NO. 2

Solicitation No.: V1197409B1
Solicitation Title: Commuter Coaches 45-Foot (NSM)

Date Of Addendum: February 26, 2014

Attention all potential bidders:

☐ Must Addendum: Read carefully and follow all instructions. Information included in this Addendum will have a material impact on the submittal for this solicitation. All "MUST" *addenda and/or revised Bid Sheets* are considered a matter of responsiveness. "MUST" addenda must be returned with your Bid submittal or acknowledged on the Bid Sheet Form. All revised Bid Sheets must be returned with your Bid submittal. Failure of a Submitter to or acknowledge the Addenda and/or return the revised Bid Sheets (choose one or both) shall be cause for rejection of the bid.

☐ Return Addendum with Bid submittal or Acknowledge on the Bid Sheet

To all prospective bidders, please note the following changes and clarifications: Words in ~~strikethrough~~ type are deletions from existing text. Words in **bold underlined** type are additions to existing text.

1. The Bid Opening Date has been revised as follows: **March 12, 2014** at 2:00 p.m. Location remains the same.

2. The deadline for receipt of Request(s) for Approved Equal (RFAE) was February 21, 2014. Attached to this Addendum are Broward County's responses to the Requests for Approved Equals that were submitted by the established deadline. Bidders are advised to read each RFAE and corresponding response to be aware of any changes to the bid requirements.

All other terms, conditions and specifications remain unchanged for this bid.

NAME OF COMPANY: _____

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 1 **Bid Page No.** 2 of 6 **Bid Reference Specification No.** SEC. (d) Taxes

Bid specification Requirement:

Taxes

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Taxes

Description of product offered for approved equal:
MCI wishes to clarify that our proposal will not include any Federal State or Local taxes as we are not licensed to collect these taxes. Any sales tax, imposts, revenues, excise or other taxes which may hereafter be imposed by congress, by the state, or any political subdivision thereof applicable to the sale or material delivered as a result of this proposal will be paid by the County.
Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [ ] Not Approved
[X] No response required.

Reasons: In accordance with the Invitation for Bid - General Conditions, the terms and conditions are standard for all contracts for commodities/services issued by the Board of County Commissioners.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 2 **Bid Page No.** 4 of 6 **Bid Reference Specification No.** SEC. 18 Inspection, Acceptance and Title

Bid specification Requirement:

Inspection and Acceptance

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Acceptance

Description of product offered for approved equal:
MCI requests approval of the attached which is more in keeping with current APTA procurement guidelines.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: In accordance with the Invitation for Bid - General Conditions, the terms and conditions are standard for all contracts for commodities/services issued by the Board of County Commissioners.

In accordance with the specifications, BCT will perform final inspection within five business days after delivery. If BCT does not reject the bus within five business days after delivery, acceptance occurs at close of business (COB) on the 5th day after delivery.

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Reliability Driven™

A. To enable MCI to submit a responsive proposal, MCI requests that the County add the following to or revise this section as follows.

"Except as otherwise provided in this contract, the contractor shall be responsible for the coaches covered by this contract until they are delivered to the designated delivery point, regardless of the point of inspection. After delivery to the designated point, the County will complete a cursory inspection of each coach for any physical damage that may have occurred during coach delivery. Any damage shall be duly noted on the contractor's delivery order and will be the contractor's responsibility to repair. The contractor will not be responsible for any physical damage on coaches which is not so reported. Prior to acceptance by the County or rejection and giving notice thereof by the County, the County shall be responsible for the loss, destruction of or damage to the supplies. The contractor shall bear all risks as to rejected coaches after contractor retakes possession and/or control of the coaches."

Risk of loss passes at point of delivery. Risk of loss responsibility for the coaches need to be transferred to the County upon delivery of the coach to the designated delivery point. Contractor cannot be liable for any loss to the coach or delay that may occur between coach delivery and final acceptance or retaking possession, as Contractor has no ability to control or prevent any physical loss of or damage to coaches that are in another party's possession.

B. Pre-delivery tests and inspections shall be performed at the Contractor's plant. When a bus passes these tests and inspections, the resident inspector shall authorize release of the bus.

Upon arrival at the designated point of delivery, the bus shall undergo the County's final inspection process. If the County does not notify the Contractor of non-acceptance within five (5) calendar days after delivery, acceptance of the bus by the County occurs on this fifth day after delivery. Acceptance may occur earlier if the County notifies the Contractor of early acceptance or places the bus in revenue service.

Should a condition of non-acceptance occur, MCI requests that the County notify the Contractor within two (2) calendar days of detection of defects. This will ensure Contractor's prompt action to rectify any deficiencies and allow the County to place the bus in revenue service.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 3 **Bid Page No.** 6 of 6 **Bid Reference Specification No.** SEC. 34 Audit Right and Retention of Records

Bid specification Requirement:

Audit and Inspection of Records

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Audit

Description of product offered for approved equal:
MCI wishes to clarify that Motor Coach Industries, Inc. (Bidder) is a privately held company and its financial records are considered confidential. Should the County wish to review such financial information, the County must execute and deliver a non-disclosure agreement in form and substance satisfactory to the bidder prior to obtaining such financial information.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☐ Approved ☐ Not Approved
☒ No response required.

Reasons: In accordance with the Invitation for Bid - General Conditions, the terms and conditions are standard for all contracts for commodities/services issued by the Board of County Commissioners.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@mcicoach.com Phone: 847-285-2105

Request No. 4 **Bid Page No.** 6 of 6 **Bid Reference Specification No.** SEC. 36

Bid specification Requirement:
Requires out-of-state corporations to be registered to conduct business in Florida at time of submission.

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product:

Description of product offered for approved equal: MCI requests that it be permitted to register in Florida upon notice of award, inasmuch as bidder is not otherwise required to register in Florida.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons: Registration will be a condition for recommendation of award.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 1 **Bid Page No.** 7 of 187 **Bid Reference Specification No.** Paragraph 12.

Bid specification Requirement:

Insurance Requirements

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Insurance

Description of product offered for approved equal:
MCI maintains an insurance program it believes to be suited for its business and cannot modify it to meet requirements of each solicitation. While MCI is willing to provide a certificate of insurance, it will be one that is in form and substance satisfactory to MCI and its insurers.
MCI must also point out that unlike a construction project where the contractor is working on the owner's land and progress payments are being made, the County has no insurable interest in the vehicle until the Bus is delivered to the F.O.B point. Accordingly, any annotation that shows additional insured/loss payee information will be limited" to the extent its interests may appear". As a result MCI respectfully requests that Section 12 be deleted in its entirety and replaced with the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: For further consideration, vendor is directed to review "INSURANCE EXCEPTION REQUESTS" included at end of Bid Sheets and, if applicable, indicate if an exception to insurance requirements is being requested at time of bid submittal.

“AT ITS OWN EXPENSE, THE CONTRACTOR SHALL PROCURE AND MAINTAIN DURING THE TERM OF THIS CONTRACT, AT LEAST THE FOLLOWING COVERAGE AND LIMITS OF INSURANCE:

Workmen's Compensation Insurance in accordance with the laws of North Dakota.

Commercial General Liability Insurance. Commercial General Liability Insurance coverage must be on an "occurrence" basis, and shall include, but need not be limited to, coverage for bodily injury, property damage, products liability and general aggregate coverage with, at minimum, the following limits:

	Coverage	***Limit***
.	Personal Injury and Advertising	$1,000,000 per Occurrence
	Contractual	$1,000,000 per Occurrence
	General Aggregate	$1,000,000

Automobile Liability Insurance. The Automobile Liability Insurance shall include coverage for bodily injury and property damage arising from the operation of any owned, non-owned, or hired automobile. The Automobile Liability Insurance Policy shall provide not less than $1,000,000 Combined Single Limits for each occurrence.

The Contractor will provide evidence of such insurance upon written request.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 2 **Bid Page No.** 12 of 187 **Bid Reference Specification No. Para** 26.2

Bid specification Requirement:

Price Escalation Caused by Manufacture's Price Increase

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: PPI Index

Description of product offered for approved equal:
MCI requests that the above paragraph be deleted and replaced with the following for any additional option coaches that may be required.
Prices will be firm through the first 12 months of award, for any additional purchases after that time any additional units ordered will be based on the original bid price as adjusted using the **PPI index for series No. 1413 for Truck and Bus Bodies.** The suggested PPI index is in accordance with current APTA procurement guidelines.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: Proposed deletion and replacement not approved.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 3 **Bid Page No.** 13 of 187 **Bid Reference Specification No.** Paragraph 30

Bid specification Requirement:

Battery Disposal

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Batteries

Description of product offered for approved equal:
MCI wishes to clarify that after delivery and acceptance MCi will not be responsible for the reclamation and disposal of the bus batteries.

Note; The above requirement was deleted with addendum # 1 and is now therefore not required.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [ ] Not Approved
[X] No response required.

Reasons: Referenced Clause removed through Addendum No. 1.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 4 **Bid Page No.** 13 of 187 **Bid Reference Specification No.** Paragraph 35.2

Bid specification Requirement:

Liquidated Damages

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Delivery

Description of product offered for approved equal:
MCI clarifies that should we be the successful bidder delivery would be no sooner than 280 days from receipt of signed contract or purchase order.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only **CLARIFICATION**
Broward County Response: [ ] Approved [X] Not Approved

Reasons: Please provide in your bid the actual delivery schedule. BCT and vendor will agree on a not to exceed delivery date after which Liquidated Damages would begin. BCT has an immediate need for the Coaches so delivery schedule is important.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 5 **Bid Page No.** 14 of 187 **Bid Reference Specification No.** Paragraph 35.3

Bid specification Requirement:

"… for each calendar day…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Liquidated Damages

Description of product offered for approved equal:
"… per bus for each calendar day."
MCI would request the above language be changed to read
"…per bus for each business day. Business days are more in line with current industry standards. Additionally, facilities required to effect necessary repairs are usually not available on the weekend
Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [x] Approved [ ] Not Approved

Reasons: Change to read "…per bus for each **business** day (plus approved extensions) …".

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 6 **Bid Page No.** 14 of 187 **Bid Reference Specification No.** Paragraph 36.0

Bid specification Requirement:

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Conditional Acceptance

Description of product offered for approved equal:
"In the event that the vehicle does not meet all requirements for acceptance, BCT may, at its exclusive option," conditionally Accept" the vehicle and place it in to revenue service…"

MCI cannot accept coaches being placed in to revenue service that have not been fully accepted. BCT has ample protection under paragraph 3.2.5 Post Delivery Testing. Additionally, it will be in the Contractor's best interest to expedite the necessary repairs to facilitate the initial payment.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons: BCT will either accept or reject Coaches within (5) five business days from delivery.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. 7 **Bid Page No.** 14 of 187 **Bid Reference Specification No.** Paragraph 36.0

Bid specification Requirement:

Payment delivery of all spare components and Manuals

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Payment

Description of product offered for approved equal:
MCI clarifies that all spare components will be shipped from MCI service parts t MCI cannot accept a 10 % hold back pending receipt of service parts

The County is protected as payment will not be due for the spare components until 30 days after all of the spare components have been received. Additionally as several of these components would be provided by outside suppliers we cannot accept holdback on the payment of the coaches pending receipt of these components from these suppliers.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☐ Approved ☐ Not Approved
Reasons:
In Lieu of 10% holdback for components, BCT will withhold payment for component parts until ALL components are delivered.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 1 **Bid Page No.** 32 **Bid Reference Specification No.** TS 5.4.2

Bid specification Requirement:

Maintenance and Inspection Tests ports

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Test Ports

Description of product offered for approved equal:
MCI clarifies that tests ports are provide for the cooling system as requested. However, hydraulic systems for the wheelchair lift and power steering are provided with sight glass only.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 2 **Bid Page No.** 33 **Bid Reference Specification No.** TS5.5

Bid specification Requirement:

Operating Environment

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Operating Environment

Description of product offered for approved equal:
MCI requests approval to provide our standard operating environment as detailed on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

A Service of the Broward County Board of County Commissioners
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OPERATING ENVIROMENT

The coach shall achieve normal operation in temperature ranges of -10 to 110 degrees F (-23º to 43º C), at relative humidity between 5 percent and 100 percent and at altitudes up to 5,000 feet (1,524 m) above sea level. Degradation of performance due to atmospheric conditions shall be minimized at temperatures below -10 degrees F (-23º C) and above 110 degrees F (+43º C) or at altitudes above 5,000 feet (1,524 m). Special equipment or procedures may be employed to start the coach after a 12 hour or more exposure to temperatures below +30 degrees F (-1º C) without the engine in operation.

Speed, gradability, and acceleration performance requirements shall be met at, or corrected to, 85 degrees F (29 C), 29.00 inches (737 mm) Hg, dry air. Performance degradation at conditions other than the test standard shall not exceed 1 % for each 3 degrees F/C and 4 % for 1,000 feet (305 m) of altitude above the standard.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 3 **Bid Page No.** 34 **Bid Reference Specification No.** TS5.7

Bid specification Requirement:

New Components

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: New Components

Description of product offered for approved equal:
MCI will provide certifications as requested. Certification may be existing certifications from our suppliers or direct from MCI if it is a MCI designed manufactured and installed component.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 4 **Bid Page No.** 35-37 **Bid Reference Specification No.** TS 6.1

Bid specification Requirement:

Design

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Coach Design

Description of product offered for approved equal:
MCI requests approval to provide our standard coach design and structure as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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Materials and Construction

For economy in maintenance, it is essential that parts and units be arranged so that rapid assembly and disassembly will be possible for the coach being provided. The dimensions of all parts, unless particularly specified, will be in accordance with current standards of the Society of Automotive Engineers, or the metric equivalents. All units or parts not specified shall be Manufacturer's standard units or parts and shall conform in material, design and workmanship to industry standards and shall meet or exceed all Federal and State motor vehicle safety standards. During the manufacturing of the coaches all parts shall be new and in no case will used, reconditioned or obsolete parts be accepted. No advantages shall be taken by the Manufacturer in the omission of any parts or details that make the coach complete and ready for service, even though such parts or details are not mentioned in these specifications.

Workmanship throughout shall conform to the high standard of commercially accepted practice for the class of work and shall result in a neat and finished appearance. All exposed surfaces and edges shall be smooth, free from burrs and other projections, and shall be neatly finished. Exposed metal surfaces, prior to paneling or covering shall be properly prepared and coated with protective material to insure against corrosion or deterioration.

All lubrication points, unless otherwise specified, shall be capable of accepting a high pressure grease gun operated on fittings that permit grease to travel into the lubrication point but does not permit the grease to escape and designed so that when the grease gun is withdrawn, there is a positive barrier preventing dirt from entering the fitting. These fittings shall be of one manufacture and shall be accessible for a grease gun while the vehicle is being serviced on either a lift or a pit.

DESIGN

The coach shall have a clean, smooth, simple design, primarily derived from coach performance requirements and passenger service criteria. Body construction shall not be of a body on chassis type. The exterior and body features, including grilles and louvers, shall be shaped to allow complete and easy cleaning by automatic bus washers without snagging washer brushes. The retention of water and dirt in or on any body feature or the freezing or bleeding out of this dirt and water after leaving the washer shall be minimized. Body and windows shall be sealed to prevent leaking of air, dust, or water under normal operating conditions and during cleaning in automatic bus washers for the service life of the coach. Accumulation of spray and splash on any window of the coach generated by its wheels on a wet road shall be minimized. The undercarriage of the coach shall be sealed off to the maximum extent practicable to significantly reduce the intrusion of road spray.

MOTOR COACH INDUSTRIES, INC.
STANDARD CORROSION PROTECTION
MODEL D4000 AND D4500 COACHES

1. INTRODUCTION
2. STRUCTURE
3. EXTERIOR PANELS
4. PREVENTION OF ELECTROLYTIC ACTION

INTRODUCTION

This corrosion standard is designed to enhance the customer's knowledge of Motor Coach Industries commitment to corrosion prevention. The information provided shows designated areas of our coach in which corrosion resistant materials and practices are used.

Motor Coach Industries extensive use of stainless steel materials in the design and construction of the Model D4000 and D4500 coaches is a result of over thirty five years of experience in the design and construction of intercity/commuter coaches beginning with the MC-5. This extensive use of stainless steel provides the strength and durability necessary for the commuter coaches operating throughout all areas of Canada and the USA.

Motor Coach Industries has several customers with coaches operating in the high corrosion areas of Eastern United States which operate MC-9 model coaches that are in excess of 15 years old. The D4000 and D4500 models use stainless steel more extensively than the MC-9 models we built 15 years ago. Specifically we have increased the use of stainless steel in the rear upper structure, the front upper structure, the front tire compartment and the engine rails. We believe that the D4000 and D4500 model coaches will have a longer corrosion life than the MC-9 models, many of which are still in operation.

STRUCTURE

Motor Coach Industries utilizes an abundance of stainless steel as depicted on the attached illustrations. The shaded areas are High Strength Low Alloy Steel (HSLA). The non-shaded areas are type 304 stainless steel.

All frame members below the passenger floor that are subject to road splash and are less than .100 inch thick are stainless steel for maximum corrosion protection. All other frame members exposed to splash are HSLA steel and are .100 inch thick minimum. They are also coated with Tectyl 127CG on all surfaces exposed to road splash,

Plywood floor supports in the passenger and drivers area, the sidewall structures and the roof structures are not exposed to road spray, and have a lower corrosion resistance requirement. These components are HSLA and are primed prior to incorporation into the coach assembly.

The floor supports and sidewall components are also painted with a gray finish coat.

EXTERIOR PANELS & DOORS

Motor Coach Industries uses 304 series stainless steel for all exterior paneling below the passenger floor line.

Outer sidewall panels above the passenger floor and below the windows are steel, galvanized inside and pre-primed outside. The roof panels are pre-primed aluminum both sides. The front and rear caps are fiberglass.

Stainless steel panels and door frames are also used on all service doors and passenger doors except the baggage doors.

Non-structural underbody panels used for baggage bay floors and to retain insulation in other area, are Tectyl coated aluminum or stainless steel. In the wheelwell areas, non-structural closeout panels are stainless steel.

Before assembling, all metal body parts are given a thorough anti-corrosion treatment. Joints between dissimilar metals are properly insulated with an inert plastic tape to avoid corrosion due to electrolytic action. All nuts, bolts, clips, washers, clamps, and like parts are zinc or cadmium plated, phosphate coated, black oxide coated, stainless steel, or nylon to prevent corrosion. All exterior joints and seams are sealed.

PREVENTION OF ELECTROYLTIC ACTION

It is a policy at Motor Coach Industries, that dissimilar metals must be separated by a non-conductive barrier.

Barriers may consist of one of the following:

1) a black elastic compound tape
2) a mylar tape
3) a double sided structural adhesive tape

Where tape barriers are not feasible, an appropriate sealant is used to provide a protective barrier and a water tight seal. This sealer is used on baggage floors and all panels and assemblies that are susceptible to water leaks.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 5 **Bid Page No.** 37 **Bid Reference Specification No.** TS6.3

Bid specification Requirement:

"… Imron 5000…"

Request for Approved Equal:

Manufacturer Offered: Dupont Imron Elite

Model No./Product: Elite (Silver 832401EG)

Description of product offered for approved equal:
MCI requests approval to provide Dupont Imron Elite in lieu of Imron 5000 which is no longer available.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 6 **Bid Page No.** 38 **Bid Reference Specification No.** TS6.4.1

Bid specification Requirement:

Numbering and Signing Exterior Paint and Lettering

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Exterior Paint Design

Description of product offered for approved equal:
To enable MCI to provide a firm fixed price we would request that the County provide a drawing or rendition of the final exterior paint and lettering requirements.

Product Literature attached to this form: ☐ Yes ☐ No

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Broward County Response: ☒ Approved ☐ Not Approved

Reasons: The Coach is to be a single color (Silver) with the remaining artwork to be decals. A Color rendering is not available at this time.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 7 **Bid Page No.** 40-41 **Bid Reference Specification No.** TS6.5

Bid specification Requirement:

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Corrosion

Description of product offered for approved equal:
Please refer to request # TS 4 for complete details of our proposed corrosion information.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 8 **Bid Page No.** 42 **Bid Reference Specification No.** TS6.6.6

Bid specification Requirement:

"the method of attaching the tow bar shall be provided to BCT with the RFE."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Towing Procedures

Description of product offered for approved equal:
In accordance with the above requirements please find attached towing method

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons: One lift and tow dolly is to be provided as part of the bus bid and included in the price of the bus.

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SECTION 3F

LIFTING AND TOWING

CONTENTS OF THIS SECTION

SUBJECT PAGE

General Description 3F-1

Service Tools 3F-5

GENERAL DESCRIPTION

If a disabled 102 D series coach should ever need to be towed or jacked, there are some basic rules, procedures and safety precautions that should be strictly followed during these operations.

When towing the coach always follow the procedures as recommended and specified in this section.

CAUTION

Coaches should only be towed by operators authorized and experienced in towing intercity coaches.

When jacking coach for tire change always use only the specified jacking locations shown in this section. Use of any other jacking location may result in damage to the coach body and/or frame.

The coach parking brakes should be applied preceding any jacking operation, or while awaiting assistance from a tow vehicle.

NON-LIFTED TOW PROCEDURE

If a disabled 102 D series coach should need to be towed without lifting the front end follow the procedure below. Read the entire procedure before starting.

1. Remove stud nuts and washers retaining axle shafts, rap axle shaft flange sharply to loosen dowels, and pull axle shaft. Plug load tubes to prevent oil loss.

CAUTION

With either automatic or manual transmission the drive axle shafts must be removed when coach is being towed to avoid possibility of damage to transmission.

2. Before attempting to tow coach, parking brakes must be released. Check the service brake air pressure on the dash mounted dual air gauge.

CAUTION

The park brake circuit and at least one service brake circuit require full air pressure, preferably the primary (rear service brake) circuit. This will allow the park brake push-pull valve to be pushed down, allowing the locks to release and permit the park brakes to retract. A full service brake application will be required to ensure release.

Note: If all circuits are low, and the air system is intact, the entire system may be filled through the schrader valve in the RH rear service compartment. If all circuits are low and the coach won't run or generate air pressure, fill at least one service circuit and the park brake circuit using the appropriate emergency fill valves in the front LH service compartment.

3. Operate the coach engine during the tow to maintain brake system air pressure, or attach an external air pressure line, from the tow truck, to the emergency park/service brake fill valve in the front service compartment. The air pressure must be 75 psi minimum and the line should be attached via screw type or clamp-on type air connector.

CAUTION

Do not tow the coach without external air pressure applied to the emergency park /service brake air fill valves, unless the coach engine and its air compressor are in operation. Without system air pressure, the park brakes will apply automatically if parking air pressure falls to approximately 40 psi.

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4. Position the tow truck so that the truck's tow bar contacts the front bumper of the coach.

5. Attach the tow truck chains in the coach tow eyes and take up all slack.

6. Attach safety chains as applicable.

7. Observe the normal towing precautions including, but not limited to, the ones listed below when towing the coach:

a. Make sure the park brake is released before towing by making a service brake application.

b. Do not allow passengers in the coach during towing.

c. Do not exceed a prudent, safe towing speed. Be aware of changing conditions.

d. Avoid "tight" turning. Accelerate and decelerate slowly, with caution.

e. After approximately two miles towing, check and retighten the safety and tow chains as necessary.

LIFTED TOW PROCEDURE

If a disabled 102 D series coach should need to be lifted from the ground in order to be towed follow the procedure below. Read the entire procedure before starting.

MCI has available an I-beam frame assembly which can be used for lifting and towing coaches. The lift and tow frame (part No. 20-414) is recommended whenever a coach is to be towed with the front wheels off the ground (Figure 1).

⚠ CAUTION ⚠

Do not lift fully loaded coaches.

⚠ CAUTION ⚠

The following procedure explains the use of the lift and tow frame developed for use by authorized and experienced tow truck operators. This tool and procedure is NOT approved for any other application.

Also, this procedure explains only the recommended method to attach the tool to the coach. It does not attempt to explain or instruct personnel in all conceivable proper methods and details for safe lifting and towing of coaches. MCI recommend that this tool and procedure be used only by tow truck operators authorized and experienced in towing intercity coaches.

MCI cannot be responsible for the improper use of this equipment by inexperienced or unauthorized individuals.

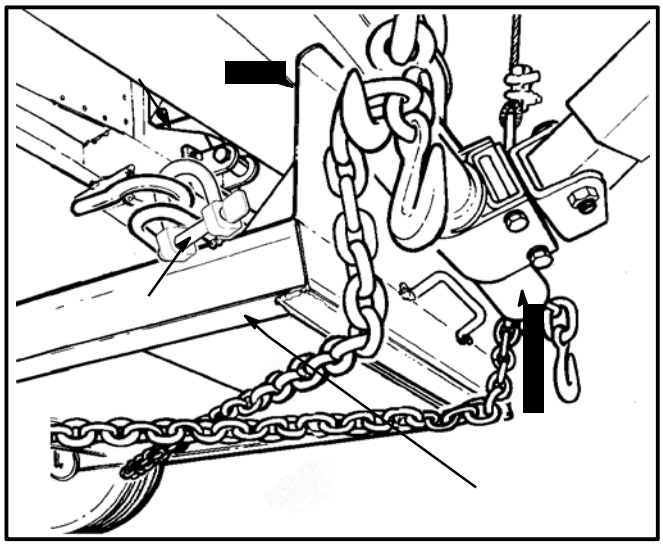

Figure 1. Lift/Tow Frame Chain Placement

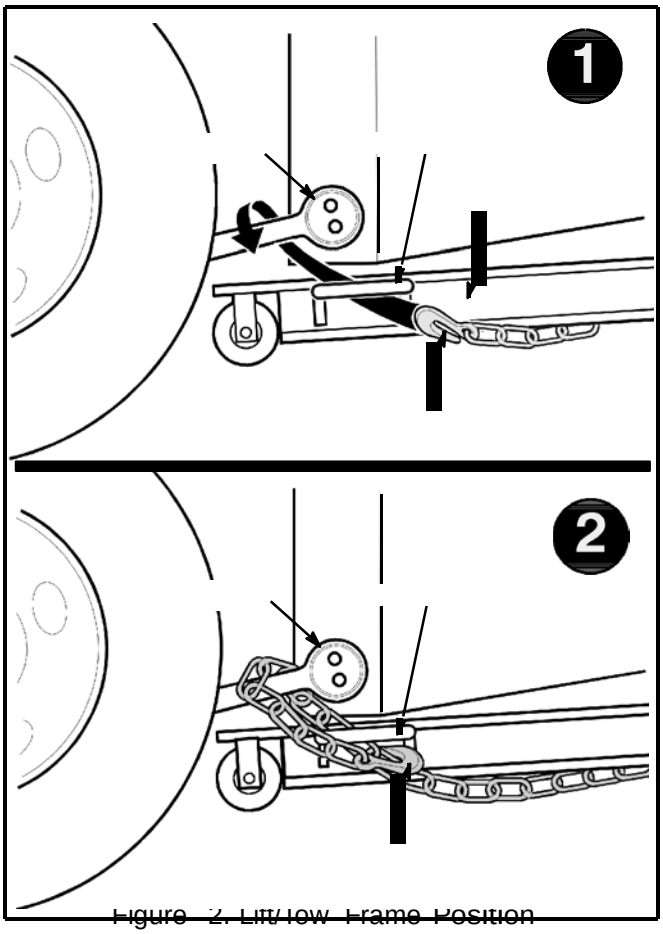

Figure 2. Lift/Tow Frame Position

1. Follow steps 1 thru 4 of the "Non-Lifted Tow" procedure.

2. Lock tag axle for 102DL3 coaches only. Tag axle override switch should be in the locked position if the coach is towed with the master switch ON.

3. Chain up front axle.(Figure 3)

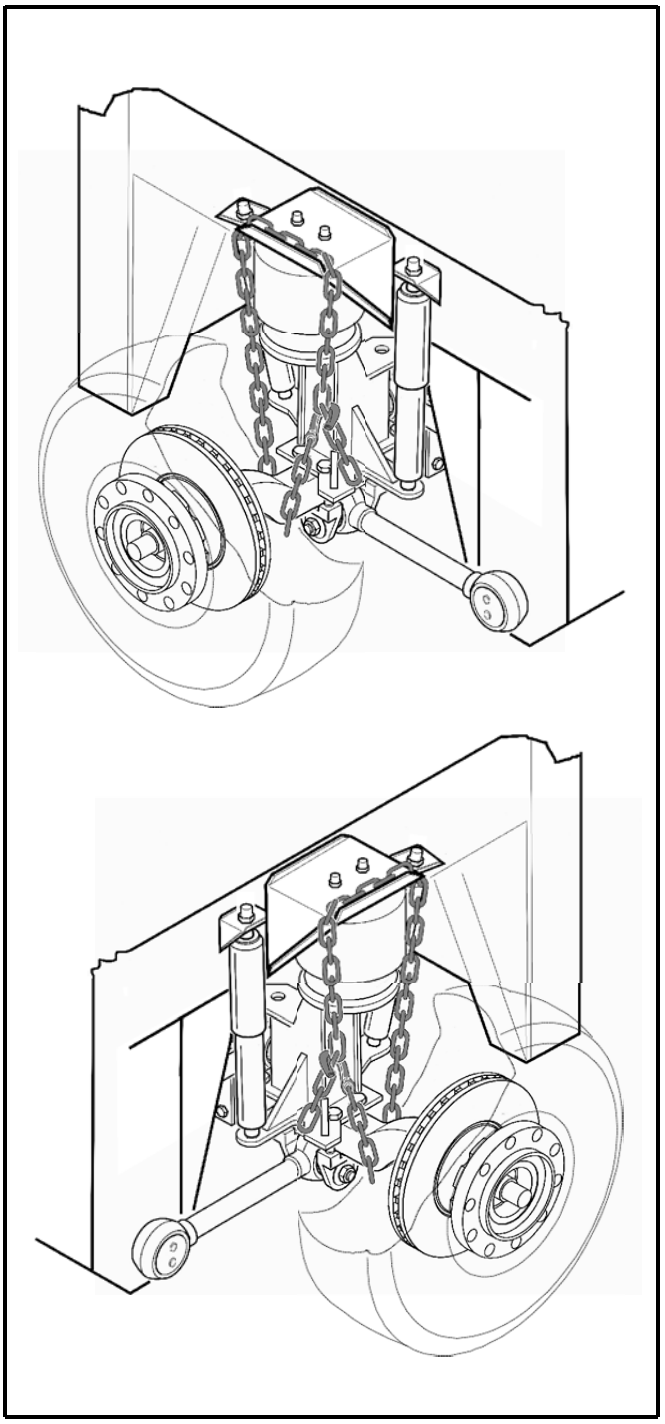

Figure 3. Chaining up Front Axle

4. Spread the tow truck lifting chains under the front area of the coach in an “X” configuration. Approximately two feet of the end of the typical tow truck chain should extend out from under the coach, past the bumper.

5. Roll the lift frame under the coach (over the chains) until the front shield is below, and slightly in front of, the coach bumper. The frame must be laterally centered under the coach center line.

6. Raise the rear of the lift frame until it contacts the coach undercarriage near the front of the radius rods. Support the rear of the frame in this position.

7. Wrap the tow chains around the radius rods in the following manner as shown in (Figures 1 & 2).

a. Bring each chain up through the “D” ring on the lift frame.

b. Wrap the chain around the radius rod from inside to outside.

c. Secure the hook onto the chain, under the “D” ring as tight as possible, on the radius rod.

8. Raise the front of the lift frame and locate the lift frame onto the skid plates. The skid plates should sit inside the lift frame channels. The stops on the lift frame should be immediately in front of the skid plates. Support the frame in this position..

9. At opposite corners from each radius rod, bring the tow chains up the front of the frame shield and around the lift bar on the tow truck.

⚠ CAUTION ⚠

Take precautions to eliminate the slack from the chains under the frame before lifting the coach. This will ensure the truck tow bar does not “ride up” over the shield and against the front of the coach.

10. Place two clevises at the front of the lift frame through the “D” rings on the lift frame and the tow eyes on the coach frame.:

a. Place a protective carpet or similar material between the lift frame shield and the bumper to minimize scuffing of the bumper.

11. Observe the normal precautions including, but not limited to, the ones listed below when towing the coach:

a. Make sure the park brake is released before towing.

b. Do not allow passengers inside the coach during towing.

c. Do not exceed a prudent, safe towing speed. Be aware of changing conditions.

d. Avoid “tight” turning. Accelerate and decelerate slowly, with caution.

e. After approximately two miles towing, check and retighten the safety chains as necessary.

JACKING POINTS

When it is necessary to raise the vehicle by using jacks, care should be taken to ensure that jacks are located only at the specified locations (Figures 4, 5 & 6). Other locations may cause frame distortion and or body damage.

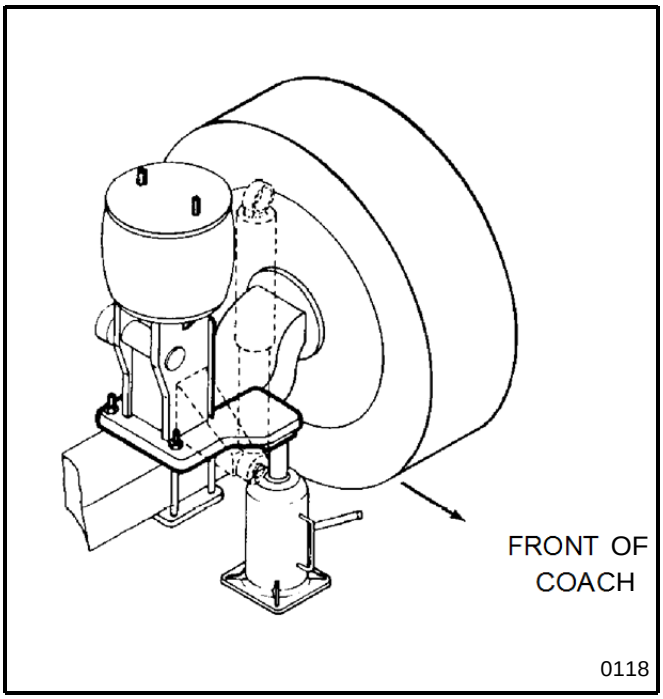

Figure 4. Front Jacking Points

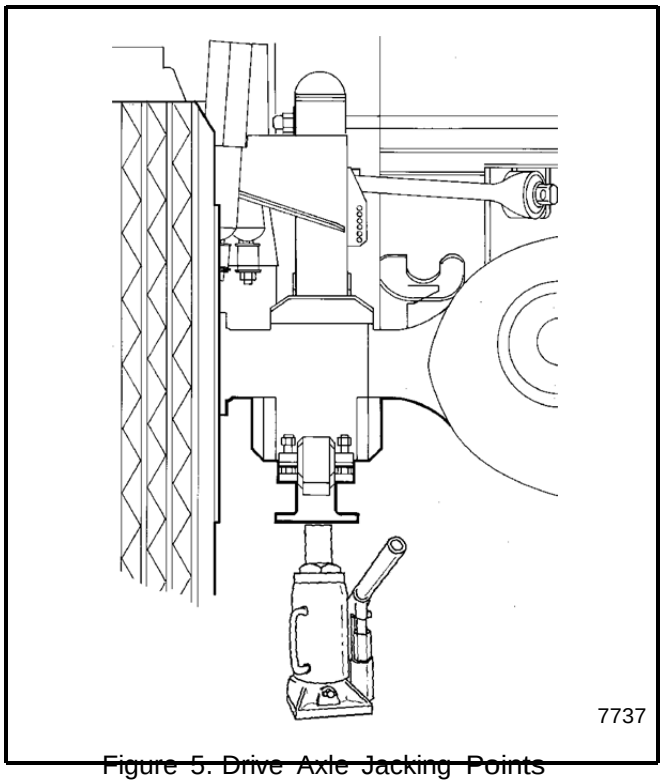

Figure 5. Drive Axle Jacking Points

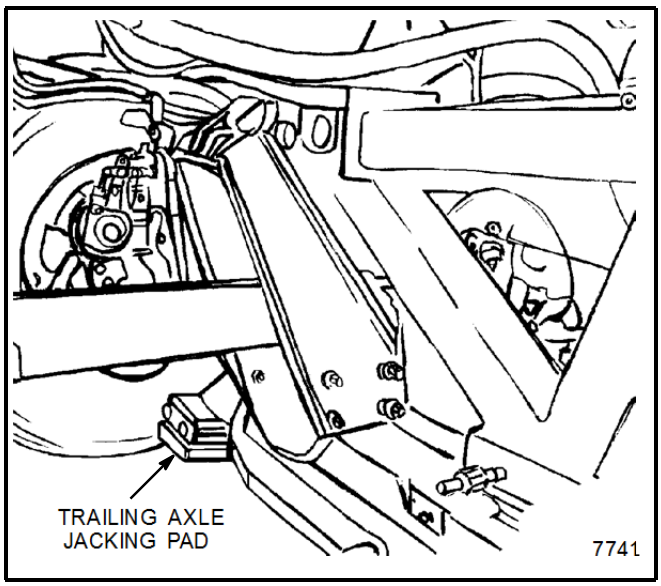

Figure 6. Trailing Axle Jacking Points

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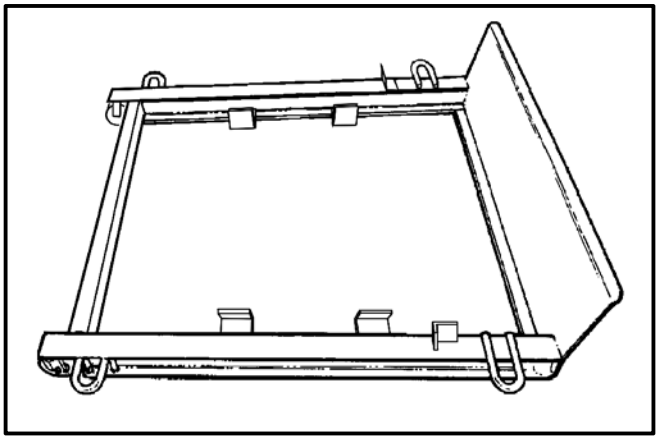
SERVICE TOOLS

SOME OF THE TOOLS USED FOR THE MAINTENANCE PROCEDURES OUTLINED IN THIS SECTION ARE NONSTANDARD. THEY ARE, HOWEVER, AVAILABLE FOR PURCHASE FROM MOTOR COACH INDUSTRIES AND UNIVERSAL COACH PARTS. WHERE PRACTICAL, THEY MAY BE FABRICATED AT THE SERVICE FACILITY.



20 - 414: Lift and Tow Dolly

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS 9 **Bid Page No.** 43 **Bid Reference Specification No.** TS 6.6.7

Bid specification Requirement: "Jacking plates shall be approximately two inches square, with a turned down flange…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Jacking Plates

Description of product offered for approved equal:
MCI requests approval to provide our standard D model coach jacking plates that do not have a turned down flange which may cause a miss- alignment on the jacking pads.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS10 **Bid Page No.** 43 **Bid Reference Specification No.** TS 6.6.8

Bid specification Requirement:

Fire Protection

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Fire Protection

Description of product offered for approved equal:
MCI requests approval to provide the following fire protection as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: Please see response to next RFAE.

FIRE PROTECTION

The passenger and engine compartments shall be separated by a bulkhead(s) which shall, by utilization of fire resistant materials in its construction, be a firewall. This firewall shall preclude or retard propagation of an engine compartment fire into the passenger compartment. Only necessary openings shall be allowed in the firewall, and these shall be fire resistant. Any passageways for climate control system air flow shall be separated from the engine compartment by fire resistant material. Piping through the center tunnel bulkhead shall be copper, steel, nylon air brake tubing (for air and fuel), PVC (closed conduit) or brass and shall be sealed with fire-resistant material at the firewall. Wiring may pass through the bulkhead only if connectors or other means are provided to prevent or retard fire propagation through the firewall. The conduit and bulkhead connectors shall be sealed with fire resistant material at the firewall. Engine access panels in the firewall shall be fabricated of fire resistant material and secured with fire resistant fasteners. These panels, their fasteners, and the firewall shall be constructed and reinforced to minimize warping of the panels during a fire that will compromise the integrity of the firewall. The coach body shall be adequately sealed to prevent the intrusion of smoke, fuel, and fumes into the coach interior.

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS11 **Bid Page No.** 43-44 **Bid Reference Specification No.** TS6.6.9.1

Bid specification Requirement:

Fire Suppression

Request for Approved Equal:

Manufacturer Offered: Amerex

Model No./Product:

Description of product offered for approved equal:
MCI requests approval to provide our standard Amerex fire suppression system as described on the attached.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

AMEREX FIRE SUPPRESSION

An Amerex® modular vehicle fire suppression and overheat warning system will be provided to detect and extinguish fires in the engine compartment. The system will be electrically controlled. A 25-lb. (11-kg) dry-chemical extinguisher cylinder will be installed in the #3 baggage compartment. Three thermostats and four extinguisher nozzles will be installed in the engine compartment in strategic locations. If the thermostats detect excessive heat, then the cylinder will discharge a dry chemical agent into the engine compartment. A button at the end of the left-hand console will trigger the extinguisher. A control panel above the driver will monitor the system. Normally a green LED indicating "System OK" will be illuminated on the front of the monitor. When a fire is detected a red LED and buzzer on the control panel will warn the driver. When the fire has been extinguished the green LED will light again.

The fire suppression system will be powered by the coach's electrical system, but an internal rechargeable back-up battery will be provided in case the coach's electrical system is interrupted

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS12 **Bid Page No.** 45 **Bid Reference Specification No.** TS6.7.6

Bid specification Requirement:

"No package racks are required"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Package Racks

Description of product offered for approved equal:
MCI clarifies that we cannot provide our D4500 commuter model coaches without package racks. Interior lighting air ventilation etc. are all an integral part of our interior package racks. Details on our proposed interior package racks are provided on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PARCEL RACKS

A minimum 12 module parcel rack without dividers and compartment doors shall be furnished over all two-passenger seating positions except in the wheelchair door area. Retention cords shall run the length of the rack housing except where air conditioning components are housed. These compartments will have dividers and locking doors. The parcel rack edge, running along the full length of the aisle, shall incorporate a handhold for use by standees. Passenger headroom measured from the rack end to the top of the seat headrest, shall be a minimum 17 Inches (280 mm). Interior window post caps shall be ABS plastic, grey in color. The interior of the rack shall be carpet covered. Parcel racks shall be supported by glass filled nylon struts spaced approximately 48 inches (1,220 mm) apart. Total carry-on capacity shall be a minimum of 123 $ft.^3$ (3.5 m^3).

Passenger service modules mounted on the underside of the parcel rack shall include individually controlled LED passenger reading lights, an exit signal push button, and individual air distribution outlets receiving air from the parcel rack HVAC system. These outlets shall be adjustable from fully closed to full open position. A minimum of fifteen speakers shall also be provided in the parcel rack for the driver controlled public address system. Speakers shall broadcast, in a clear tone, announcements that are clearly perceived from all seat positions at approximately the same volume level. Passengers utilizing the securement systems shall be provided identical amenities as provided for all other passengers except that the parcel rack shall be deleted in the area of the wheelchair lift door. Separate and independent notification will be provided on the dashboard indicator panel for stop request notification from securement positions.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS13 **Bid Page No.** 46 **Bid Reference Specification No.** TS6.7.7

Bid specification Requirement:

Underfloor Baggage Compartments

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Baggage Compartments

Description of product offered for approved equal:
MCI requests approval to provide our standard underfloor baggage compartments as described on the attached.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

UNDERFLOOR BAGGAGE COMPARTMENTS

Full width under floor baggage compartments shall be provided between the front and rear axles. Each compartment shall be separated by an aluminum panel except the front and rear bulkheads shall be stainless steel. Bolt-on baggage compartment panels shall be provided on the LH side of the coach and in the RH rear location. Baggage compartment doors shall be provided in the #1 & #2 RH locations. Baggage doors in lieu of fixed panels are optional. Baggage compartment doors shall be fully sealed vertical lift pantograph type. Each door shall include an aluminum or composite frame with an aluminum outer panel. Doors shall be spring counter balanced for ease of operation. The #1 RH (curbside) baggage door shall have a key lock. All other baggage doors shall be equipped with air locks. Each baggage door shall have a 4.0 x 10 inch (102 x 254 mm) flush mounted breakaway type latch handle located with a center point approximately 38 inches (965 mm) off the ground.

Each under floor compartment shall be pressurized and illuminated with LED lamps when the doors are opened. The lamp fixtures shall be sealed to preclude the intrusion of dust and moisture into the fixture. The floor of the baggage compartments shall be flat composite material.

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS14 **Bid Page No.** 46 **Bid Reference Specification No.** TS 6.8.1

Bid specification Requirement:

"… Padding shall be provided on the overhead paneling."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Overhead Padding

Description of product offered for approved equal:

MCI requests approval to provide our basic overhead parcel rack which is constructed with a plastic coated integral hand hold along the full length of the parcel rack at the aisle side lower corner. As a result **padding cannot be provided** at this location.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only

Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS15 **Bid Page No.** 47 **Bid Reference Specification No.** TS 6.8.4

Bid specification Requirement:

"The rear bulkhead and rear interior surfaces shall be Altro Chroma 2.7.slip resistant flooring…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Rear Bulkhead

Description of product offered for approved equal:
MCI's advises that we will provide the Altro Chroma flooring as requested on the interior passenger floor only.
The rear bulkhead will be grey fiberglass as flooring material cannot be installed at this location.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS16 **Bid Page No.** 48 **Bid Reference Specification No.** TS6.8.7.2

Bid specification Requirement:

Edges

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Flooring

Description of product offered for approved equal:
MCI requests approval to provide our standard flooring installation as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

EDGES

The floor shall be essentially a continuous flat plane, except at the stepwell. Where the floor meets the walls of the coach, the surface edges shall be blended with a circular section of radius not less than .5 inch and a molding or cover shall prevent debris accumulation between the floor and wall.

Interior flooring shall be flat throughout except for an 8 ft. (2.4 m) long welded ramp in the aisle section at the front which is sloped 5.35 degrees and has a 3 inch (76 mm) riser under the #1 RH and #1 LH passenger seats except for a “hump” in front of the rear cross seat (when engine brakes are provided). The floor is attached to the underframe with adhesive and rivets. Wheel housings may not extend above floor line.

Access openings in the floor shall be sealed to prevent entry of fumes and water into the coach interior. Flooring material shall be flush with the floor and shall be edge-bound with stainless steel to prevent the edges from coming loose. Access openings may be symmetrical if the fasteners are arranged to ensure alignment of the flooring. Fasteners shall be flush with the floor when secured.

Rubber flooring adhesion procedure includes butt cut type edges that are securely bonded to the plywood floor with a waterproof adhesive. Flooring areas which are edge-bound with stainless steel shall include the sidewall on each side, the ramp in the center aisle, the base of rear cross seat, the step up under the number 1 seat, the driver’s modesty panel and the RH front passenger’s modesty panel.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS17 **Bid Page No.** 48 **Bid Reference Specification No.** TS 6.8.7.3

Bid specification Requirement:

"the entire composite floor…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Plywood Flooring

Description of product offered for approved equal:
MCI requests approval to provide our standard exterior grade plywood floor as described on the attached. A composite floor is not available.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

Floor Protection
The floor, as assembled, including the sealer, attachments, and covering, shall be waterproof, non-hygroscopic, resistant to heat, dry rot, mold growth, and impervious to insects. Plywood shall be no less than one half-inch thick 5 ply water resistant Douglas Fir per CSA 0121-M1978 or PS1-95 (APA) and shall be installed with all edges sealed. The floor in the aisle shall be no less than an overall thickness of one half-inch water resistant Douglas Fir per CSA 0121-M1978 or PS1-95

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS18 **Bid Page No.** 51 **Bid Reference Specification No.** TS6.9.2.1

Bid specification Requirement:

Windshield Wipers

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Doga Wipers

Description of product offered for approved equal:
MCI requests approval to provide our standard windshield wiper system which utilizes Doga wiper motors. Wipers shall be two speeds and shall be **activated by a single control** which operates the wipers on both sides of the windshield in unison.
Wipers shall also have an intermittent feature which provides **a standard 4 second delay**.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS19 **Bid Page No.** 52-53 **Bid Reference Specification No.** TS 6.9.3.1

Bid specification Requirement:

Exterior Lighting

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Exterior Lighting Proposal

Description of product offered for approved equal:
MCI's proposal is based on providing our standard exterior lighting as described on the attached.

(Diagram also provided) in addition to our standard exterior lighting as depicted. MCI will also provide the two exterior

Amber decal lights as requested.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

LIGHTING, CONTROLS, INSTRUMENTS

EXTERIOR LIGHTING

All lighting shall meet Federal standards (including FMVSS/CMVSS 108). Exterior lighting systems shall be nominal 12V or 24V. The use of LED lamp assemblies shall be maximized to the extent practicable. All exterior lighting fixtures shall be sealed to prevent entry and accumulation of moisture or dust. Lamps, lenses and fixtures shall be interchangeable to the extent practicable, and fixtures shall be corrosion resistant with sockets to be brass or stainless steel or plastic housings. Lamps at the rear of the coach, except the license plate lamp, shall be visible from behind when the engine service doors are opened. Sockets shall comply with SAE Standard J576C.

Visual and audible warnings shall inform following vehicles or pedestrians of reverse operation. Visual reverse operation warning shall conform to SAE Standard J593. Audible reverse operation warning shall conform to SAE Recommended Practice J994-Type C or D. Daytime running lights shall be provided.

Two light installation housings containing 90 mm high and low beam headlamps, an amber front clearance light and an amber forward turn signal light shall be provided. Three LED side turn lamps shall also be provided along each side of the coach. These side turn lamps will also serve as marker lamps.

Rear tail lamps assemblies containing 4” round LED turn, stop and tail lamps shall be provided. LED front (amber) and rear (red) clearance lamps shall be provided.

Reflectors on the sides and rear of coach shall be provided. The front and center side reflectors shall be amber. The rear side and rear reflectors shall be red. The reflectors shall be permanently affixed to the coach.

SERVICE AREA LIGHTING

Four lamps shall be provided in the engine compartment to generally illuminate the area. The lamps shall be controlled by a switch located near the rear start controls in the engine compartment. These lamp assemblies shall be adequately sealed to prevent the intrusion of moisture or debris during coach operation or normal servicing operations such as steam cleaning. Necessary lights, also sealed, shall be located in other service compartments, and shall be provided with maintain contact switches on the light fixture or convenient to the light.

FLUSH MOUNTED CURB LIGHTS

Flush-mounted curb lights shall be installed on the right hand curbside of the coach. One light shall be installed in the no.1 baggage bay door, two shall be installed on the wheelchair lift door and one shall be mounted in the right hand rear engine service door.

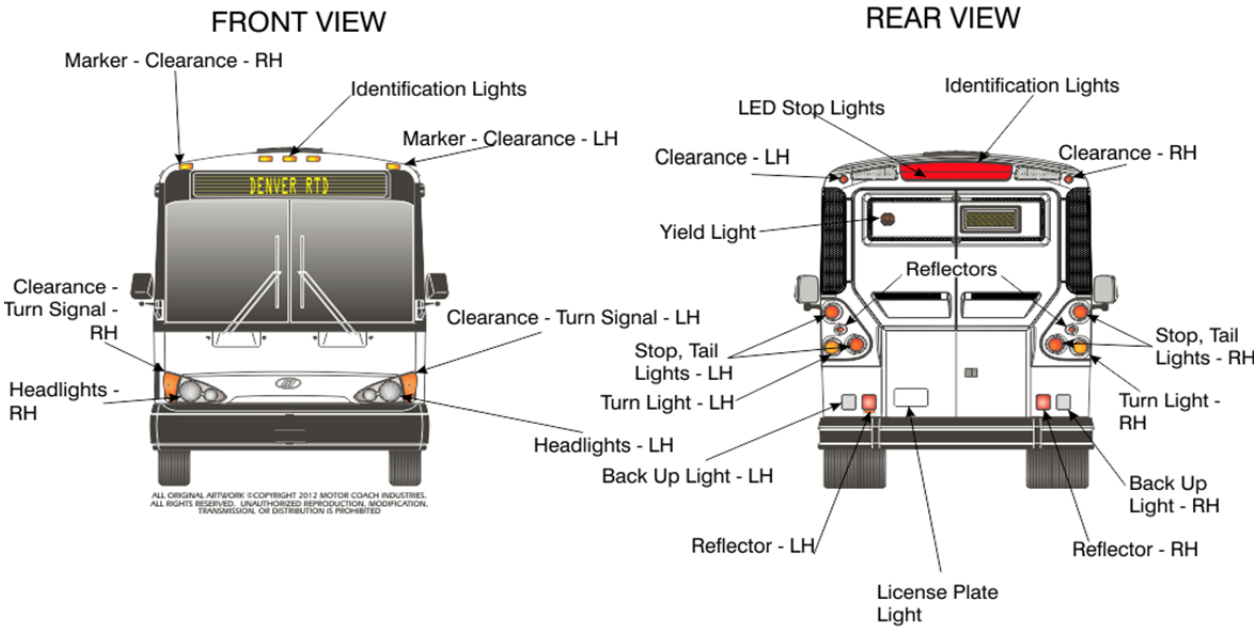
The curb lights shall illuminate the curbside area the coach when the entrance door is opened, activated through the door control relay.

The lights shall extinguish automatically approximately 10 seconds after closing the entrance door. The curb light in the no. 1 baggage bay door shall extinguish when the baggage bay door is opened.

DRIVER'S LIGHTING

The driver's area shall have a lamp to provide general illumination of the driver's area and shall illuminate the half of the steering wheel nearest to the driver. This lamp shall be controlled by a switch that is conveniently located for access by the driver.

LIGHTS - EXTERIOR


FRONT VIEW
Marker - Clearance - RH
Identification Lights
Marker - Clearance - LH
DENVER RTD
Clearance - Turn Signal - RH
Clearance - Turn Signal - LH
Headlights - RH
Headlights - LH
ALL ORIGINAL ARTWORK ©COPYRIGHT 2012 MOTOR COACH INDUSTRIES. ALL RIGHTS RESERVED. UNAUTHORIZED REPRODUCTION, MODIFICATION, TRANSMISSION, OR DISTRIBUTION IS PROHIBITED
REAR VIEW
Identification Lights
LED Stop Lights
Clearance - LH
Clearance - RH
Yield Light
Reflectors
Stop, Tail Lights - LH
Stop, Tail Lights - RH
Turn Light - LH
Turn Light - RH
Back Up Light - LH
Back Up Light - RH
Reflector - LH
Reflector - RH
License Plate Light

EXTERIOR LIGHTS - FRONT & REAR VIEWS

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS20 **Bid Page No.** 54-55 **Bid Reference Specification No.** TS6.9.3.6

Bid specification Requirement:

" The instrument panel shall be a programmable virtual dash manufactured by I/O controls"

Request for Approved Equal:

Manufacturer Offered: Actia

Model No./Product: Dash Panel

Description of product offered for approved equal:
The I/O controls virtual dash is not available and cannot be provided. MCI's proposal is based on providing our standard dash which is manufactured by Actia. See attached details bellows. Additionally, MCI will provide the Fleetwatch Model JX55 data logger as requested.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

A Service of the Broward County Board of County Commissioners
Excellence in Government Procurement – Our Best. Nothing Less.

Dashboard Controls

1. Interior light switch
2. Front light switch
3. Reading light switch
4. Dimmer reading light switch
5. Cruise control on/off switch
6. Cruise control set/resume switch
7. Engine Brake switch
8. Fast idle switch
9. Tag axle switch
10. Rear rise switch
11. ATC mud/snow switch
12. Drivers fan (defrost)
13. Heating and A/C control panel
14. Turn signal/windshield wipers and washers
15. Steering column adjustment
16. Entrance door air dump valve
17. P.A. System
18. Vent
19. SmarTire® and SmartWave® full function display
20. Fuel gauge
21. Voltmeter gauge
22. Speedometer with alpha-numeric display
23. 4-in-1 gauge with tell-tales
24. Tell-tales
25. Wheelchair lift master switch with self-cancelling flip cover
26. Park brake valve
27. Electric horn
28. DEF gauge
29. Transmission temperature gauge
30. Instrument panel

Lower LH Console

1. Chime switch
2. 110 volt switch
3. Hazard switch
4. Engine Start switch
5. Fog light switch
6. Dome light switch
7. Driver's light switch
8. Panel illumination
9. Auxiliary heat switch
10. Parcel rack ventilation switch
11. RH blind switch
12. LH blind switch
13. Master run control
14. Entrance door open/close switch
15. Kneel switch
16. Engine overrule switch with self-cancelling flip cover
17. Exterior mirror keypad control
18. Automatic transmission pushbutton shift selector w/ green panel illumination lights
19. Dzus fastener key
20. Reading light cover removal tool
21. Cup holder
22. Accessory power supply

2007 and 2010 EPA Engine Code Retrieval—LCD Diagnostic Interface

To view the ENGINE FAULT CODES:

1. Locate the LCD diagnostic interface,
2. Position the DIAGNOSTICS toggle switch to ON,
3. Press the POWERTRAIN screen bar on the HOME screen,
4. Press the ENGINE FAULT CODES screen bar,
5. Navigate through the screen to view active and non-active engine

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS21 **Bid Page No.** 56 **Bid Reference Specification No.** TS 6.10.1.1

Bid specification Requirement:

"Interior panels between window mullions will be Blue Moraine gloss finish. Below windows to seat will be Blue Moraine finish."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Interior Panel Proposal

Description of product offered for approved equal:
MCI requests approval to provide our standard window mullions which are cool white Fiberglass reinforced plastic. This material is not available in Blue. Additionally MCI advises that panels below windows are available in grey melamine finish or can be covered with a blue fabric selection to be chosen by the county at a preproduction meeting is we are the successful bidder.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS22 **Bid Page No.** 56 **Bid Reference Specification No.** TS 6.10.1.2

Bid specification Requirement:

" Materials for the headlining shall be Chiffon gloss finish"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Headlining Materials

Description of product offered for approved equal:
MCI requests approval to provide our standard materials for headlining which is grey fiberglass.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS23 **Bid Page No.** 56 **Bid Reference Specification No.** TS6.10.1.4

Bid specification Requirement:

" The rear bulkhead and rear interior surfaces shall be paneled with Altro Transflor Chroma 2.7…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Rear Bulkhead Material

Description of product offered for approved equal:
As previously mentioned with request # TS 15 MCI cannot install flooring material on our rear bulkhead. Rear bulkhead is grey fiberglass.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS24 **Bid Page No.** 57-58 **Bid Reference Specification No.** TS 6.10.2.1

Bid specification Requirement:

"Passenger seats will be USSC Patriot (non reclining)"

Request for Approved Equal:

Manufacturer Offered: USSC

Model No./Product: Torino G Passenger Seats

Description of product offered for approved equal:
MCI clarifies that we cannot accommodate USSC Patriot passenger seats as these seats have never been installed or tested in an MCI coach. MCI can provide USSC Torino G Transit seats which are similar to the (Patriot) See attached.

Seats can be provided without armrests and with a fixed recline.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved
Reasons: Torino seats shall be stainless steel back (not cloth) with stainless steel grabrails, no armrests, fixed (non) recline, BCT pattern and material spec.

AMAYA
ISO 9001 Certified

ASTRON
ISO 9001 Certified

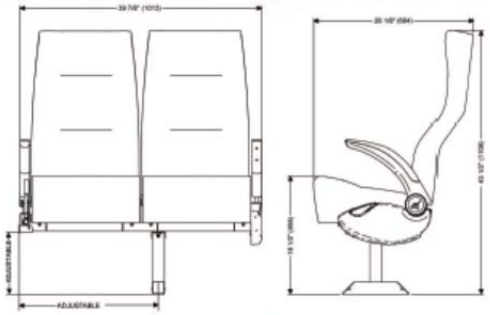
FEATURES

- The "Torino Transit" seat has been developed with a thin high backrest providing extra hip-to-knee room and includes the well known ergonomic design provided in all the Amaya-Astron seat models.
- Fold down aisle armrest.
- Stationary window armrest.
- Mechanical recliner mechanism.
- The frame incorporates steel tube box construction and steel interior back plate, all metal components are powder coated.
- Cushion, back and headrest made from fire retardant and high resilient polyurethane foam.
- Cord carpet on the back of the seat.
- Steel powder coated pedestal.
- The "Torino Transit" seat can be installed in 96" and 102" coaches.

OPTIONS

- Square type grab handle mounted on top of backrest.
- Round type grab handle mounted on top of backrest.
- Classic type grab handle mounted on aisle side of backrest.
- Plastic manual footrest, "Boomer" model.
- Sliding and stationary flip up seats for handicap seating configuration.

Torino Transit



AMAYA ASTRON seating

MEXICO
Roberto Fulton 6, Fraccionamiento Ind. San Nicolas
Tlalnepantla, Estado de Mexico, 54030
Phone: + 52 (55) 5311-5000
donovan@asientosamaya.com.mx

SMALL & MEDIUM BUS SALES
FREEDMAN SEATING COMPANY
(773) 524-2440
info@freedmanseating.com www.freedmanseating.com

FOR TRANSIT SALES
(610) 265-3610
info@4one.com www.4ONE.com

www.amaya-astron.com.mx

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Bidder to complete the following:

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS25 **Bid Page No.** 57 **Bid Reference Specification No.** TS6.10.2.1

Bid specification Requirement:

"two forward facing wheelchair passengers in which the primary position shall be on the street side of the coach…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Wheelchair Lift Seating

Description of product offered for approved equal:
MCI requests approval to provide our standard two forward facing wheelchair passengers in which the primary position will be on the curb side.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

A Service of the Broward County Board of County Commissioners
Excellence in Government Procurement – Our Best. Nothing Less.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS26 **Bid Page No.** 57 **Bid Reference Specification No.** TS6.10.2.1

Bid specification Requirement:

"… will accommodate a sled pulled through the areas…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Wheelchair Lift Opening

Description of product offered for approved equal:
MCI requests further clarification on what is meant by a sled.

MCI model D4500 coach can accommodate a standard size wheelchair and wheelchair opening area is 48 inches in accordance with current ADA requirements.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons: Comment is related to front door lifts and not applicable for this purchase.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS27 **Bid Page No.** 58 **Bid Reference Specification No.** 6.10.2.2

Bid specification Requirement:

"The coach manufacturer shall identify the number of seated positions lost on any bus configuration during the approved equal process."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Wheelchair Seating Capacity

Description of product offered for approved equal:
MCI clarifies that passenger seating will be reduced from 57 passengers to 47 passengers when there are two wheelchair passengers on board.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved
Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS28 **Bid Page No.** 58 of 187 **Bid Reference Specification No.** TS 6.10.2.2

Bid specification Requirement:

"Longitudinal seats shall be the same general design…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Seating Clarification

Description of product offered for approved equal:
MCI clarifies that all seats on our model D4500 coach are forward facing transverse seats. Longitudinal seats are not available.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved
Reasons:

A Service of the Broward County Board of County Commissioners
Excellence in Government Procurement – Our Best. Nothing Less.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS29 **Bid Page No.** 58 **Bid Reference Specification No.** TS 6.10.2.2

Bid specification Requirement:

" seat materials shall have anti-bacterial and anti Graffiti treatment"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Seat Fabric

Description of product offered for approved equal:
MCI clarifies that we can provide the Holdsworth defender treatment on the seat material which is an anti-bacteial treatment but not an Anti Graffiti material which is not available from the fabric suppliers.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS30 **Bid Page No.** 59 **Bid Reference Specification No.** TS6.10.3.1

Bid specification Requirement:

Driver's Seat

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Recaro Ergo Metro

Description of product offered for approved equal:
MCI's proposal is based on providing our standard Recaro Ergo Metro driver's seat as described on the attached.

Additionally, a Recaro seat alarm will be provided.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons: Seat belt shall be a three point seat belt.

DRIVER'S SEAT

DIMENSIONS

The driver's seat shall be a Recaro Ergo Metro or approved equal. The driver's seat shall be adjustable and shall have up to 9.05 inches (230 mm) of fore and aft adjustment. The seat back and cushion shall be adjustable. The seat shall have cushion depth adjustment, height adjustment (5.5 inches (140 mm) maximum), seat back adjustment, rear cushion adjustment and lumbar adjustment so that operators ranging in size from the 98th percentile male to the 5th percentile female may operate the coach. The suspension control shall be ergonomically designed so that the operator can adjust the seat without looking. The suspension height adjustment and lumbar switches shall be operated with a rocker switch, no rotating knobs are acceptable. The seat suspension shall be capable of dampening varying frequencies that are transmitted through the vehicle caused by varying road conditions. The seat shall be cushioned by a dual shock absorber design. One shock shall be adjustable to allow the operator to control the ride settings. A rubber bumper is required to prevent bottoming out of the seat.

A rubber boot shall be provided to cover the suspension to eliminate the potential for pinching. All air lines are to be 0.25 inch (6 mm) diameter and have a quick disconnect at the back of the seat. The suspension shall have a minimum of 15 degrees of seat cushion tilt (rake adjustment). The rake adjustment shall be dual-sided and be accomplished without leaving the seat. The seat cushion shall adjust from 18-20 inches (457 – 508 mm) for varying size drivers. Double locking seat tracks with stainless steel bearings shall be provided. The seat tracks shall be located below the seat cushion and above the pneumatic suspension to enhance track durability and improve rearward travel. The seat shall come equipped with an air track release and a manual center release. All controls are to be on the right-hand side of the seat.

The seat shall be equipped with manual dual recliner gears. The seat back shall be adjustable with dual sided hand controls and include a 24.5 degree recline stop. Recline stop is to prevent the seat from interfering with the driver's barrier. The seat back shall be infinitely adjustable from 90 to 114.5 degrees. The seat back shall come with a full protective plastic back shell.

The back structure shall be constructed of steel and include a one piece stamped steel shell. The seat back shall be ergonomically designed and adjustable to provide exactly the right support to match the S-shaped curve of the operators back. The seat back foam shall be fully supported, no wires or spring support is to be provided. Solid steel bolster adjustment supports are required to provide strong lateral supports. Lateral supports will help hold the driver in place and reduce muscle fatigue while driving.

The seat cushion shall be adjustable in length and rake to accommodate operators of various heights. The seat cushion shall have a two inch extension for taller operators. To accommodate shorter operators, the front of the seat cushion shall rake down and retract.

A three cell air lumbar with right hand controls shall be provided for lower back support. Each air bag shall be individually controlled. Switch design and layout shall be positioned so that the operator can adjust without looking. A four way adjustable headrest with six position vertical adjustment shall be provided. The seat shall be provided with a two point 72 inch 72 inch (1.8 m) seat belt that is stored in plastic anti-cinch automatic retractors mounted on the left side of the seat. The seat belt buckle shall be located on the right hand side of the seat for easy access.

STRUCTURE AND DESIGN

The driver’s seat cushion shall be made of polyurethane foam. The foam shall be constructed to provide lateral support to provide better operator stability in curves and turns. All exposed metal on the driver's seat, including the pedestal, shall be unpainted aluminum or stainless steel. Required seat belts shall be fastened to the seat so that the seat may be adjusted by the driver without resetting the seat belt. Seat belts shall be stored in automatic, inertia locking type retractors that do not tighten up during operation. The retractor shall be located to the left of the driver; the latch mechanism shall be located on the right. The seat belt shall be designed to allow the operator to "set" the tension on the belt. The belt shall be designed to not creep, making the belt tighter or loose. The seat belt shall be long enough to secure a 98% male driver.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS31 **Bid Page No.** 60-61 **Bid Reference Specification No.** TS 6.11.1

Bid specification Requirement:

Windshield

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Windshield

Description of product offered for approved equal:
MCI's proposal is based on providing our standard front windshield as detailed on the attached

Window material and light transmittance is in a accordance with current FMVSS requirements

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

WINDSHIELD

The windshield shall be designed and installed to minimize external glare as well as reflections from inside the coach. When the coach is operated at night with the passenger interior lighting on, essentially no reflections shall be visible in the windshield immediately forward of the driver's barrier. Reflections in the remainder of the windshield shall be minimized, and no reflection of any part of the coach interior behind the driver's barrier shall be visible in the windshield.

The windshield shall be easily replaceable by removing zip-locks from the windshield retaining moldings. Bonded windshields shall not be used. The glazing material shall have single density tint.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS32 **Bid Page No.** 61 **Bid Reference Specification No.** TS 6.11.2

Bid specification Requirement:

Driver's Side Window

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Driver's Side Window

Description of product offered for approved equal:
MCI requests approval to provide our standard driver's side window as described on the attached. `

Driver's window and light transmittance is in accordance with current FMVSS guidelines.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

DRIVER'S SIDE WINDOW

The driver’s side window section shall be divided vertically and the rearward section shall slide fore and aft in tracks or channels designed to last the service life of the coach. The driver's side window shall not be bonded in place and shall be easily replaceable. The glazing material shall be nominal 0.25 inch (6 mm) laminated, tempered glass with single density tint, the same as the windshield. The side window shall be rated AS-2.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS33 **Bid Page No.** 61 **Bid Reference Specification No.** TS 6.11.3

Bid specification Requirement:

"Windows shall be frameless, 28 percent grey tinted, tempered."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Side Passenger Sash

Description of product offered for approved equal:
MCI requests approval to provide our standard frameless side passenger sash which complies with this requirement except windows are laminated not tempered.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

A Service of the Broward County Board of County Commissioners
Excellence in Government Procurement – Our Best. Nothing Less.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS34 **Bid Page No.** 61 **Bid Reference Specification No.** TS 6.11.3

Bid specification Requirement:

"All passenger side windows shall be equipped with protective liners…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Side Passenger Windows

Description of product offered for approved equal:
MCI clarifies that protective liners are not available for our side passenger windows and therefore cannot be provided.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS35 **Bid Page No.** 62 **Bid Reference Specification No.** TS 6.11.3

Bid specification Requirement:

"Windows shall be operable transom type."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Side Passenger Windows

Description of product offered for approved equal:
MCI clarifies that our side windows are one piece laminated safety glass and are not transom type which cannot be provided.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS36 **Bid Page No.** 63 **Bid Reference Specification No.** TS 6.13.1.1

Bid specification Requirement:

Drivers area Visors

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product:

Description of product offered for approved equal:
MCI's proposal is based on providing our standard driver's visors as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

DRIVER'S AREA

VISORS

Three roller type sunscreens shall be provided at the right and left hand windshield and at the driver's side window. Guide rods shall be located at each end of each screen to allow for infinite positioning. The sunscreens shall be shaped to minimize light leakage between the sunshades and windshield pillars. The sunscreens shall not obstruct air flow from the climate control system or obstruct the operation of other equipment such as the radio handset or the destination sign control. Sunscreen adjustments shall be made easily by hand.

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS37 **Bid Page No.** 70 **Bid Reference Specification No.** TS 6.13.5

Bid specification Requirement:

Fare Collection

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Farebox

Description of product offered for approved equal:
MCI requests approval to provided electrical provisions and mounting holes for future installation of the farebox by the county. MCI pays a significant cost increase from the farebox suppliers than what the County would pay buying the farebox direct from the farebox company. That being said MCI has not been provided ample time by the County to contact the farebox company and determine if all of the requirements specified can be accommodated.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved
Reasons: Approval to provide electrical provisions and mounting holes for future installation of the farebox by Broward County. Just to be clear, BCT will purchase and install the five (5) fareboxes for this coach order; coaches are to be pre-wired.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS38 **Bid Page No.** 72-75 **Bid Reference Specification No.** TS 6.13.6

Bid specification Requirement:

Lift

Request for Approved Equal:

Manufacturer Offered: Braun

Model No./Product: NUVL855RM24

Description of product offered for approved equal:
MCI requests approval to provide our standard Braun Wheelchair Lift as described on the attached

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

WHEELCHAIR LIFT

A Braun model number NUVL855RM24 dedicated access extended travel lift, or approved equal and two forward facing mobility device securement areas to accommodate a maximum 30.0 inches (762 mm) wide mobility device shall be provided. The lift assembly shall comply with all current ADA and FMVSS 403 and 404 requirements. The lift shall be installed below the floor line at the number 2 right-hand luggage bay on the curbside of the coach.

The lift shall be controlled by a dash mounted toggle switch and a rear lift area toggle switch, and operated by up/down switches on a pendant mounted to the lift support bracket inside the number 2 baggage bay. The lift Restraint Belt must be buckled before the lift can be raised or lowered. The safety interlock circuit can be energized to operate the lift only if: the transmission is in neutral, the park brake is applied, engine Fast Idle is ON, the dash-mounted Master Switch is ON, the lift Secondary Switch is ON and the lift restraint belt is buckled.

The wheelchair loading system shall provide safe, comfortable and rapid ingress and egress for applicable passengers from the street level or a curb. When not in use, the lift shall stow in the luggage bay. The lift mechanism shall include a Threshold Warning device to provide "passenger on platform" information and prevent stowing the lift platform when a passenger is sensed. The outer barrier shall be automatically controlled and shall be such that it cannot be overridden by the loading system operator. A dash mounted indicator light shall be provided and shall be illuminated when the loading system is activated. The interlock shall apply, the bus shall not move and the engine throttle shall be disabled whenever the wheelchair loading system is activated. If the lift door is open or ajar, the interlock shall remain engaged. Brackets, clamps, screw heads and other fasteners used on the passenger assists shall be anodized aluminum or stainless steel and shall be flush with the surface and free of rough edges.

The lift control mounted on the lift structure shall have push button Up / Down switches. The toggle electrical supply switch shall be located in close proximity to the controller. This toggle switch must be turned "ON" prior to the lift operation. All lift control switches shall be permanently labeled. Decals shall not be permitted. The stow guard switch shall be red in color and the Stow / Deploy switch shall be black in color. These switches shall be incorporated in a hand held pendant

The Braun NUVL855RM24 lift shall include the following specifications:

Lifting capacity (main platform)	700 pounds (317 kg)
Vertical travel	63" (1,600 mm) maximum
Platform width (chair capacity)	30" (762 mm) minimum
Platform depth (chair capacity)	48" (1,219.2 mm) minimum
Platform side height	1.50" (38 mm)
Handrail height - two (2)	30" (762 mm) minimum
Cassette stowed dimension (depth)	72.25” (1835 mm) total
Cassette Width & Height	43.5” x 8.375” (1105 x 213 mm)
Operating controls	3 pushbutton

Power source ..... Electro- hydraulic
Voltage ..... 24 volts DC
Back up system ..... Emergency hand pump
Construction ..... Steel and aluminum
Stow level to ground cycle time ..... 12 seconds at 70 degrees (21° C) – no load
Ground to floor level cycle time ..... 12 seconds at 70 degrees (21° C) – no load
Hydraulic system fluid capacity ..... 1.0 quart (1 liter)
Hydraulic system operating pressure ..... 2500 psi (17,238 kPa) minimum

The lift shall be designed to meet the Title 13 California Highway Patrol requirements and Federal Department of Transportation Regulations 49 CFR 38.

The lift shall include a hinged platform to bridge the coach floor to the lift platform. Bridge shall be hinged and locked in an upward position to act as a barrier when the lift is in use. Bridge shall also allow the lift passenger to ingress/egress easily from the platform. Lift travel speeds and lift operation shall be adjusted to the lift manufacturer's specifications upon completion of the lift installation into each coach and before coach delivery. The individual handrails shall incorporate a visual aid to insure that they are folded in the proper order.

The lift shall include an emergency system in case of driver operation malfunction. Should an emergency situation occur, the lift operator shall release the pushbutton switch on the controller to immediately stop the lift operation. Loss of electrical power shall also stop the lift operation regardless of switch position. An emergency auxiliary hydraulic hand pump shall be used to complete the lift cycle. The emergency hand pump handles and pump shall be located in an enclosed box at the rear wall of the number 1 right-hand baggage bay to prevent the accumulation of dust and dirt. The pump shall be easily accessible through baggage bay door. The handle shall be stored adjacent to the pump to allow immediate usage.

LIFT DOOR

The lift door shall be a single leaf design that operates in a sliding track mounted both above and below the door leaf. The door shall open by sliding to the rear of the coach and shall remain on a horizontal plane throughout the opening and closing process. No pin hinged doors shall be provided. The transmission must be in neutral and the parking brake activated for the lift to operate. The accelerator shall be automatically disabled and the fast idle system activated when either the lift master switch is turned "ON" or the lift door is open in order to provide maximum safety and security. These features shall be wired to the lift master switch to allow activation only when the transmission is in neutral. The coach directional (Hazard) lights will also flash on/off. After the lift operation is completed, the lift shall be properly stored and secured, with the access door closed and the lift master switch at the dash in the "OFF" position in order to move the coach.

The lift door shall have a window in line with the other passenger windows and shall not detract from the appearance of the coach. The door latch mechanism shall be located in the lower section of the door so that operators in the 5th percentile female range can operate the lift door.

The lift storage door shall not block the visual observation of the lift assembly while utilizing the manual override mode of the lift. A lift door design consisting of a horizontally hinged lift platform egress door mounted within a vertical motion pantograph baggage door is a preferred design.

LIFT INSTALLATION

The installation of the lift to the coach structure as well as the installation of the lift door into the sidewall of the coach shall not affect the structural integrity of the coach.

The parcel rack module above the wheelchair lift platform area shall be permanently removed to provide additional headroom. The modified rack shall be professionally finished at all ends.

A Threshold Warning module with a red warning light and acoustic sensor shall be mounted in the ceiling structure above the wheelchair lift entrance doorway.

The heating and air ducts shall be rerouted around the lift area to ensure proper interior air conditioning/heating airflow and distribution.

A passenger chime tape switch shall be mounted on the sidewall at the two (2) wheelchair securement

positions.

Each coach shall have adequate information decals installed which details the proper lift operation in both the normal and manual modes of operation.

LIGHTING REQUIREMENTS

Lighting for the lift areas shall be designed to exceed Title 13 and ADA and FMVSS 404 standards. Lighting shall be provided to effectively illuminate the lift area. Light shall be wired through the lift master toggle switch on the driver's dash and shall automatically illuminate when this switch is in the "ON" position. The lighting design shall minimize the effect of glare on passengers entering the bus through the wheelchair lift door. During lift operation, the street surface shall be illuminated to a minimum of six candlepower a distance of 3 feet (.91 cm) beyond the external dimensions of the lift platform once deployed and lowered. Additional lighting shall be provided to insure illumination of the instruction placard and the manual override pump when it is in use.

SECUREMENT SYSTEM

The vehicle interior shall permit the securement of two (2) forward facing wheelchair passengers in which the primary position shall be on the street side of coach directly across from lift. Securement areas shall be a minimum 30 x 48 inches (762 x 1,219 mm) as required by ADA.

A separate three-point belt securement shall be provided to effectively secure wheelchair passengers.
To further secure the passenger during the lift operation, a retractable seat belt strap shall be provided at the ingress / egress area of the lift platform. This seat belt strap must be buckled to disengage the lift electrical interlocks to allow lift operation. A minimum 10.5 inches (267mm) high barrier shall also be provided at the rear of lift area for additional passenger protection.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS39 **Bid Page No.** 77 **Bid Reference Specification No.** TS7.1.2.2

Bid specification Requirement:

" Flexible lines shall be Teflon hoses…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Flexible Lines

Description of product offered for approved equal:
MCI requests approval to provide our standard flexible lines in the engine compartment which are FC-300 Aeroquip hoses which have proved to be very effective over significant time and miles.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS40 **Bid Page No.** 77 **Bid Reference Specification No.** TS7.1.2.4

Bid specification Requirement:

(A larger power steering reservoir than the basic commuter coach shall be provided.)

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc. (MCI)

Model No./Product: Power Steering reservoir

Description of product offered for approved equal:
MCI wishes to clarify that a larger power steering reservoir cannot be accommodated due to space restraints in that area of the engine compartment.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS41 **Bid Page No.** 78 **Bid Reference Specification No.** TS7.1.3.1

Bid specification Requirement:

Engine

Request for Approved Equal:

Manufacturer Offered: Cummins

Model No./Product: ISX

Description of product offered for approved equal:
MCI requests approval to provide our standard Cummins ISX 11.9 liter engine in lieu of the 8.9 liter engine as detailed on the attached.

The 8.9 liter Diesel engine is not available from MCI at this time.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

POWERPLANT

CUMMINS ISX 2013 EPA CERTIFIED ENGINE

The Cummins ISX 11.9 liter engine, or approved equal will be four-cycle, six-cylinder, turbo-charged with an operating range of 700 rpm to 2100 rpm. The engine power rating will be 425 HP (317 kW) with a maximum torque curve of 1450 lb.-ft (1,968 Nm) at 1,200 rpm. The patented Variable Geometry Turbocharger (VG Turbo), with only one moving part in the exhaust stream, constantly adjusts to deliver the precise amount of air for optimal performance at every rpm, resulting in improved throttle response. The ISX meets 2013 EPA emissions requirements.

The Cummins ISX engine shall have Idle Control that manages idling time and improves fuel economy. The engine shall also have a starter Lockout system that provides additional engine/starter protection by preventing the starter to engage when the engine is running.

The Cummins ISX engine shall use an engine brake to turn the energy-producing engine into an energy-absorbing compressor, extending service brakes and tire life. This engine brake shall be controlled by an ergonomically accessible switch.

The engine will have built-in diagnostics to ensure that all components are operating properly. If a system component fails, the operator will be alerted to the condition via a dashboard mounted “Check Engine” and/or “Stop Engine” light. The Engine Protection system shall regulate engine rpm to reduce the risk of progressive damage when a severe fault code is logged.

The electronic hardware and software on the ISX shall use a common architecture with all the latest diagnostics, maintenance monitoring and engine protection features with customer selectable shutdown.

The entire system shall be capable of communicating with the electronically controlled transmission. The primary objective of the system is to provide the capability for the electronic engine controls to reduce power by command of the transmission in the event of transmission malfunction (low oil level/pressure; coolant temperature, etc.).

The engine electronic control module shall be constructed as a weatherproof enclosure on the engine that is protected from the environment. Engine mounted components (excluding wiring connectors) may be exposed to steam cleaning and pressure washing.

The engine shall be equipped with fast idle (950 RPM) and be driver controlled. The devices shall activate only with the transmission in neutral and parking brake applied. This device may be used to help meet the requirements of coach air conditioning cool down. The engine starter shall be protected by an interlock that prevents its engagement when the engine is running. The starter shall be prevented from engaging when the transmission selector is in any position other than neutral.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS42 **Bid Page No.** 79 of 187 **Bid Reference Specification No.** 7.1.3.2

Bid specification Requirement:

Request for Approved Equal:

Manufacturer Offered: Cooling System

Model No./Product: Emp

Description of product offered for approved equal:
MCI requests approval to provide our standard cooling system as described on the attached.

An EMP cooling system is not available from MCI with the ISX engine. Additional initial testing with EMP cooling on an over the road coach has shown no significant fuel savings.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

COOLING SYSTEM

The cooling system shall be sized to maintain fluids at safe, continuous operating temperatures during the most severe operations possible with the coach loaded to GVWR and with ambient temperatures up to 110 degrees F (43 C). Sufficient reserve capacity shall be provided by the cooling system to provide efficient cooling for the coolant and engine charge air in a degraded condition. Radiator(s) shall be Modine, or approved equal. Radiator(s), complete with charge air cooling circuit shall be provided, mounted above the engine compartment. The charge air cooler and the radiator shall be mounted at least 60 inches (1.50 m) above the road surface. The physical size and heat rejection capacity of the radiator along with the charge air cooling capacity shall be tested and approved by the engine manufacturer for this application. The radiator system shall be easily serviced through the rear doors. The radiator and charge air cooler shall not be stacked in front of one another. Door shall include hinges which hold the doors in the open position.

The charge air cooler (CAC) / radiator assembly shall be primarily of durable corrosion-resistant aluminum construction. Heat exchanger fin spacing shall not exceed 14 fins per inch. Necessary hoses shall be premium, silicone rubber type that are impervious to all coach fluids. All coolant hoses shall be secured with constant tension hose clamps. Fan speed shall be regulated to minimize fan noise. No heat producing components or climate control system components shall be mounted between the engine cooling air intake aperture and the heat exchangers. All cooling system fittings are to be cast iron, brass or copper.

A single fan, belt driven from the engine shall pull outside air through an exterior panel and across the radiator / charge air cooler at a minimum rate approved by the engine manufacturer for maximum cooling efficiency. Belt tension shall be maintained by an automatic belt tensioner to minimize belt slippage and ensure longer belt life. A Linnig fan clutch shall control fan operation.

Radiator surge tank shall be made of heavy-duty steel. A sight glass to determine satisfactory engine coolant level shall be provided and shall be accessible by opening the radiator access doors. A spring-loaded radiator cap shall also be provided to safely release pressure or vacuum in the cooling system. An engine alarm system will be included in the engine electronic control. Cooling fan logic shall be controlled electronically through the engine control system. An automatic coolant recovery system will also be provided.

Engine thermostats shall be easily accessible for replacement. The engine cooling system shall be equipped with a properly sized or approved equal cooling system filter with a spin-on, disposable element. The engine coolant shall be extended life Power Cool Plus using Organic Acid Technology (OAT) or approved equal. Shutoff valves shall be provided on the coolant filter base which allows filter replacement without coolant loss. Quarter turn valves shall also be provided and installed in the entire cooling system which permits complete shutoff of both lines for the heating and defroster units.

All low points in the water-based cooling system shall be equipped with drain cocks. Air vent lines shall be fitted at high points in the cooling system. Oil and water temperature gauges will be provided in the engine compartment.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS43 **Bid Page No.** 80 **Bid Reference Specification No.** 7.1.3.3

Bid specification Requirement:

"The transmission shall be an ALLISON WT series B500R…"

Request for Approved Equal:

Manufacturer Offered: ALLISON

Model No./Product: B500 With Engine Brake

Description of product offered for approved equal:
MCI requests approval to provide our standard Allison B500 transmission with an engine brake in lieu of a retarder as described on the attached.

A retarder transmission cannot be accommodated due to space limitations in our engine compartment.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

Commodities Contract (Rev. 12/30/2013

PREVIOUS CONTRACT

TRANSMISSION

The transmission shall be an Allison B500 six speed transmission, equipped with Allison Transmission Electronic Controls (Gen. V) or approved equal. Maximum input horsepower shall be 550 horsepower. Maximum input torque capability shall be 1650 pound feet of torque. The transmission shall have a one stage, three element, polyphase torque converter and a lock up clutch with a torsional damper. The transmission shall be fully automatic with six forward gear ratios. Shift calibration shall be set so that shifts shall be smooth under all operating conditions. The transmission shall only have one maintenance dipstick, and no other secondary service lane dipsticks. The transmission will also include a Probalyzer, or approved equal, brass Mini-gauge plug to permit transmission fluid analysis sampling.

The Allison B500 Gen V transmission shall be filled with synthetic transmission fluids that meet Allison TES-295 specification and have a TES-295 approval number and the Allison approval logo. Mobil Delvac Synthetic Automatic Transmission Fluid can be used or Allison TES-295 approved equals such as Castrol Transynd. Allison Transmission extended warranty plans require synthetic transmission fluids meeting the TES-295 specification with an approval number and the Allison approval logo to be used.

T**he gearing shall be of the constant mesh, helical, planetary type with the following ratios:**

RANGE	***RATIO***
First	3.51:1
Second	1.91:1
Third	1.43:1
Fourth	1.00:1
Fifth	0.74:1
Sixth	0.64:1
Reverse	4.80:1

A function of the electronic controls shall be provided to prevent premature engagement and operation of the automatic transmission reverse gear.

The transmission shall be governed by electronic controls, which contain a programmable read-only memory (PROM) that will provide basic transmission control functions. All cabling and electronic devices utilized by the electronic transmission control system shall be adequately shielded against interference.

The transmission electronic module shall be capable of communicating with the engine electronic module to maintain maximum efficiency. The control module shall be equipped with a self-diagnostic system. A failure shall be retained by the control module for evaluation by garage personnel using a Allison DOC software and J1939 / RS232 translation device.

Modified diagnostics shall provide timely information on transmission oil and filter change requirements and transmission rebuild timeframes.

The electronic controls shall be completely sealed from the environment. The transmission electronic control unit shall be located in a weatherproof box that is protected from environment or potential damage from under floor baggage.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS44 **Bid Page No.** 81 **Bid Reference Specification No.** 7.1.3.4

Bid specification Requirement:

"The starter shall be a Delco MT -39…"

Request for Approved Equal:

Manufacturer Offered: Mitsubishi

Model No./Product: 24 Volt

Description of product offered for approved equal:
MCI requests approval to provide our standard Mitsubishi starter which has proven to be a very reliable starter for extended periods of time.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

A Service of the Broward County Board of County Commissioners

Excellence in Government Procurement – Our Best. Nothing Less.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS45 **Bid Page No.** 81 **Bid Reference Specification No.** TS 7.1.4.2

Bid specification Requirement:

" The exhaust tubing shall be (modularized)"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Exhaust System

Description of product offered for approved equal:
MCI proposes to furnish our standard exhaust system which is not (modularized)

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS46 **Bid Page No.** 82 **Bid Reference Specification No.** TS 7.2.1.1

Bid specification Requirement:

"The drive axle shall be Meritor world axle…"

Request for Approved Equal:

Manufacturer Offered: ZF

Model No./Product: A132

Description of product offered for approved equal:
MCI requests approval to provide our standard ZF A132 drive axle as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

DRIVE AXLE

The drive axle shall be a ZF A132 Axle rated at 22,500 lbs (10,206 kg). The bearing journals on each spindle shall be induction hardened for greater durability. Ring gear shall be bolted to case. The drive axle hub end wheel bearings shall be grease lubricated, unitized wheel ends (UWE) type. Default rear axle ratio shall be 3.82:1

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS47 **Bid Page No.** 82 **Bid Reference Specification No.** TS7.2.1.2

Bid specification Requirement:

"Tag axle weight shall not exceed 12,000 lbs…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Tag Axle Weight

Description of product offered for approved equal:
MCI requests approval to provide our standard tag axle weight which shall not exceed 14,000.LBS

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS48 **Bid Page No.** 82 **Bid Reference Specification No.** TS 7.2.1.2

Bid specification Requirement:

"A visual sight gauge shall be installed in the hub to check oil level"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Trailing Axle

Description of product offered for approved equal:
MCI requests approval to provide our standard front, drive, trailing axle hubs which are unitized wheel ends complete with factory pre-load bearing/hub assemblies, lubricant and seals.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS49 **Bid Page No.** 83 **Bid Reference Specification No.** TS 7.2.1.3

Bid specification Requirement:

Drive Shaft

Request for Approved Equal:

Manufacturer Offered: Dana

Model No./Product: SPL 250

Description of product offered for approved equal:
MCI requests approval to provide our standard drive axle which is a Dana SPL 250.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS50 **Bid Page No.** 83 **Bid Reference Specification No.** TS 7.3.1

Bid specification Requirement:

Suspension

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Suspension

Description of product offered for approved equal:
MCI requests approval to provide our standard suspension system as described on the attached.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

SUSPENSION

GENERAL REQUIREMENTS

The front and rear axle suspension shall be pneumatic and equipped with straight side lobe air suspension bellows. Four suspension bellows shall be provided on the drive axle and two suspension bellows on the front axle. The tag axle shall be equipped with two straight side lobe type air springs,. Pressure in the tag axle suspension shall be automatically adjusted as required by the load-sharing system. Manual air dump valves for unloading the tag axle air suspension bellows shall also be provided in the suspension area.

The basic suspension system exclusive of bellows, height control valves, bushings and shock absorbers, shall last the life of the coach without major overhaul or replacement. Four (4) heavy-duty rubber bushed bar pin type radius rods shall be provided at all axles, front drive and tag axles to control lateral, longitudinal, and torsional movement. Radius rod bushings shall be ZF or approved equal. The coach shall be equipped with a sway bar designed to reduce body lean and increase bushing life. Items such as bushings and air springs shall be easily and quickly replaceable. Adjustment points shall be minimized and shall not be subject to a loss of adjustment in service. Necessary adjustments shall be easily accomplished without removing or disconnecting the components.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS51 **Bid Page No.** 83 **Bid Reference Specification No.** TS 7.3.3

Bid specification Requirement:

"… permit a minimum wheel travel of 3.5 inches in jounce and three inches in rebound."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Travel

Description of product offered for approved equal:
MCI requests approval to provide a minimum of 3.75 inches in jounce and 3.75 inches in rebound.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS52 **Bid Page No.** 84 **Bid Reference Specification No.** TS 7.4.1

Bid specification Requirement:

"the steering column shall be manufactured by TRW or integral to the VDO workstation…"

Request for Approved Equal:

Manufacturer Offered: Douglas Autotech

Model No./Product:

Description of product offered for approved equal:
MCI requests approval to provide our standard steering column which is manufactured by Douglas Autotech.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS53 **Bid Page No.** 84 **Bid Reference Specification No.** TS 7.4.1

Bid specification Requirement:

'The front axle shall be a non driving Meritor…"

Request for Approved Equal:

Manufacturer Offered: ZF

Model No./Product:

Description of product offered for approved equal:
MCI requests approval to provide our standard ZF front axle as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

FRONT AXLE

The front axle shall be a ZF axle rated at 16,000 pounds (7,257 kg) and shall be equipped with Bendix ABD22X disc brakes and Bendix brake chambers or approved equal with a load rating sufficient for the coach loaded to GVWR. Front axle shall be a ZF, drop center type. Kingpins shall be the low friction, needle bearing type for longer maintenance intervals.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS54 **Bid Page No.** 85 **Bid Reference Specification No.** TS 7.5.1.3

Bid specification Requirement:

" Wheel bearings and hubs shall be oil lubricated on all axles.'

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Unitized Wheel Ends.

Description of product offered for approved equal:
MCI requests approval to provide our standard unitized wheel ends. Oil lubricated hubs are no longer available and cannot be provided.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS55 **Bid Page No.** _____ **Bid Reference Specification No.** TS 7.5.1.5

Bid specification Requirement:

Air System

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Air System

Description of product offered for approved equal:
MCI requests approval to provide our standard air system as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

AIR SYSTEM

The coach air system shall operate all accessories and the braking system with reserve capacity. The engine drive Wabco SS636 37.4 cfm air compressor, or approved equal shall be sized to charge the air system brake reservoir from 0 psi. to the governor cutoff pressure of 140 psi.±3 psi (965 kPa ± 20 kPa) in less than 3 minutes while not exceeding the engines rated speed. The air compressor shall be set to cut in at 128 psi (882kPa).

Regardless of the systems air pressure, idle up to the rated engine speed shall be available to the driver with the transmission in neutral and the parking brake applied.

With the air system fully charged and the engine shut off, the reservoir capacity shall be sufficient to permit four full brake applications to maintain 60 psig (414 kPa). The pressure relief valve shall be mounted in the compressor cylinder head. The muffler or ping tank shall be mounted in the engine compartment relative to the air compressor discharge port. A drain mounted on the muffler or ping tank shall be directed or piped so as to discharge below the engine cradle or bulkhead level.

Air lines, except necessary flexible lines, shall conform to the installation and material requirements of SAE Standard J844-Type 1 or ASTM B-75 for copper tubing with standard, brass, flared or ball sleeve fittings, or SAE Standard J844-Type 3B for nylon tubing or ASTM

D-1248, Type 1, Class C Grade E5 for polyethylene tubing if not subject to temperatures over 200^0 F. Accessory and other noncritical lines may use Type 3A tubing. Nylon tubing shall be installed in accordance with the following color coding standards:

HOSE COLOR	***AIR SYSTEM INSTALLATION***
Green	..... Indicates primary brakes and supply
Red	..... Indicates secondary brakes
Brown	..... Indicates parking brake
Yellow	..... Indicates compressor governor signal
Black	..... Indicates accessories
Blue	..... Indicates suspension

Line supports shall prevent movement, flexing, tension strain, and vibration. Copper lines shall be supported by looms, grommets, or insulated clamps to prevent the lines from touching one another or any component of the coach. To the extent practicable and before installation, the lines shall be pre-bent on a fixture that prevents tube flattening or excessive local strain. Copper lines shall be bent only once at any point, including pre-bending and installation. Rigid lines shall be supported consistent with standard automotive practice. Nylon lines may be grouped and shall be continuously supported.

The compressor discharge line between powerplant and body mounted equipment shall be flexible extruded PTFE tube with stainless steel wire braid, Aeroquip 2807, or approved equal. Other lines necessary to maintain system reliability shall be flexible teflon hose with a braided stainless steel jacket. End fittings shall be standard SAE or JIC brass or steel, flanged, reusable, swivel type fittings. Flexible

hoses shall be as short as practicable and individually supported. They shall not touch one another or any part of the coach except for the supporting grommets. Flexible lines shall be supported at 2 foot intervals or less. Airlines shall be installed to minimize air leaks. Each coach shall not leak down more than 1.5 psi as indicated on the instrument panel mounted air gauges, within 15 minutes from the point of governor cut-off.

All reservoir supply and delivery airlines shall be sloped toward reservoirs and routed to prevent water traps. Grommets shall protect the airlines at all points where they pass through understructure components. Provision shall be made to apply shop air to a convenient location in the engine compartment and at the front of the coach and shall include a Schrader standard bore valve. The engine compartment Schrader valve shall be located ahead of a quarter turn valve. Air for the compressor shall be filtered through the main engine air cleaner system. All air reservoirs shall meet the requirements of SAE Standard J10 and shall be equipped with clean-out plugs and drain valves. These valves shall be protected from road hazards by major structural members. The air system shall be protected by a pressure relief valve set at 200 psi (1,379 kPa) at the air dryer and 150 psi (1,034 kPa) at the compressor. The air system shall also be equipped with check valves and pressure protection valves to assure partial operation in case of line failures.

The main airline check valve located between the air compressor and the first reservoir must be accessible for maintenance. Means shall be provided to establish the check valve to be in working order.
A Wabco SS1200 plus air dryer shall be provided and installed according to component manufacturer recommendations.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS56 **Bid Page No.** 88 **Bid Reference Specification No.** TS 7.6.1.1

Bid specification Requirement:

" Wheels shall be hub piloted, Alcoa forged disc, with Duraflange and Durabrite Finish."

Request for Approved Equal:

Manufacturer Offered: Alcoa

Model No./Product: Aluminum Wheels

Description of product offered for approved equal:
MCI requests approval to provide the Alcoa wheels as requested with Durabright but without Duraflange.

MCI cannot properly balance aluminum wheels with Duraflange as the wheel weights separate from the wheel.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved
Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS57 **Bid Page No.** 88 **Bid Reference Specification No.** TS 7.6.2.1

Bid specification Requirement:

Fuel Lines

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Fuel Lines

Description of product offered for approved equal:
MCI requests that the entire fuel line section be deleted as this paragraph refers to fuel lines for a CNG coach which is not applicable for a diesel coach.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved
Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS58 **Bid Page No.** 88 **Bid Reference Specification No.** TS 7.6.2.2

Bid specification Requirement:

" Fuel tank will be made of corrosion resistant stainless steel"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Aluminum Fuel Tank

Description of product offered for approved equal:
MCI requests approval to provide our standard Aluminum fuel tank which has a capacity of 180 gallons.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS59 **Bid Page No.** 90 **Bid Reference Specification No.** TS 7.6.4

Bid specification Requirement:

"The basic coach electrical control and wiring system shall be I/O controls…"

Request for Approved Equal:

Manufacturer Offered: Actia

Model No./Product: Multiplex

Description of product offered for approved equal:
MCI requests approval to provide our standard Actia Multiplex system in lieu of the requested I/O controls system

MCI has delivered nearly 1000 coaches with this system which has proven to be very reliable

Details of the Actia system is provided on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

ACTIA MULTIPLEX SYSTEM

The basic coach electrical control and wiring system shall be Actia Multiplex System. Versatility and future expansion of the system is provided for by expandable system architecture. The system is CAN (Controller Area Network) 2.0B/SAE J1939 compatible. On each Actia's Power Management Module (PMM), the data channels provide gateway between data segments. The CAN channels also route messages from one network segment to another.

The system components are capable of reliable operation in an environment of between minus 30C to plus 80C while encountering mobile shock and vibration. Each module is adequately shielded to prevent interference by EMI and RFI. Each PMM is programmed identically. Their individual responsibility on the vehicle is assigned through the harness by looping back the "address pin" to one of eight input pins. The "address pin" has a unique electrical signature that cannot be confused with any other input. So, at vehicle start-up each PMM discovers its location on the vehicle by recognizing which input pin is connected to the "address pin". When an input pin is used for addressing, it's no longer available for use as a vehicle input. The multiplex power source is isolated thereby avoiding any ground noise.
A LCD diagnostic display module utilizes the CAN bus to monitor each PMM's inputs and outputs status in real time, report the PMM diagnostic fault codes as well as the communication errors.
The components of the multiplex system are of modular design thereby providing for ease of replacement by field maintenance personnel. Each PMM is capable of providing combination of high side, low side and Pulse-width modulation (PWM) circuits. The internal controls device is a solid state device, providing an extended life service cycle. Protection to each individual circuit is provided be either non-self-resetting circuit breakers or fuses. Programmable time delay functions and integrated flasher capabilities are contained in the control module.

The electrical system provides and distributes power to ensure satisfactory performance of all electrical components. The system will supply a nominal 24 volts of direct current. Precautions will be taken to minimize hazards to service personnel. Transient voltages above 220 volts may be used in fluorescent lighting systems.

The power generating system is rated to provide sufficient power. Dual Leece-Neville alternators are provided with the basic commuter coach package. All circuits except for the starter and alternator power cables will be protected by circuit breakers, fuses or solid state devices. One ground may be the bus body and framing and shall be attached to ground studs. Grounds will not be carried through hinges, bolted joints (except those specifically designed as electrical connectors), or power plant mountings. Wiring and electrical equipment necessarily located under the coach will be insulated from water, heat, corrosion, and mechanical damage.

MODULAR DESIGN

Design of the electrical system is modular so that each major component, apparatus panel, or wiring

bundle is easily separable with standard hand tools or by means of connectors. Each module, except the main body wiring harness, is removable and replaceable in less than 30 minutes by a mechanic. Power plant wiring is an independent wiring module. Replacement of the engine compartment wiring module(s) will not require pulling wires through any bulkhead of removing any terminals from the wires.

JUNCTION BOXES

All relays, controller, flashers, and other electrical components are mounted in easily accessible junction boxes. The boxes are sealed to prevent moisture from normal sources, including engine compartment cleaning, from reaching the electrical components and will prevent fire that may occur inside the box from propagating outside the box. The components and circuits in each box are identified and their locations recorded on a schematic drawing permanently glued to box cover. The drawing is protected from oil, grease, fuel, and abrasion. A rear start and run control box is mounted in an accessible location in the engine compartment. No electrical controls are located where spillover from the surge tank can wash over the electrical controls or enter junction boxes.

Care is taken to route electrical harnesses from junction boxes to facilitate troubleshooting and to reduce defects. Terminal strips not blocks are used to make connections. Wiring under the coach floor in the baggage area is routed in an enclosed trough.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS60 **Bid Page No.** 91 **Bid Reference Specification No.** TS7.6.4.4

Bid specification Requirement:

Wiring and Terminals

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Wiring and Terminals

Description of product offered for approved equal:
MCI requests approval to provide our standard wiring and terminals as described on the attached

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

WIRING AND TERMINALS

All wiring between major electrical components and terminations, except battery wiring, shall be waterproof, and shall meet specification requirements of SAE Recommended Practice J555 and J1128 Type GXL or TXL. All wiring harnesses manufactured for buses purchased under this contract shall be designed and manufactured for the operation of all sub components installed on the buses. Harnesses shall be properly designed and sized to the bus. Battery wiring shall conform to specification requirements of SAE Standard J1127-Type SGX, SGT or SGR and SAE Recommended Practice J541.

All wiring shall be properly grouped, numbered, and color-coded full length. Numbering shall be stamped at least every two (2.0) inches (50.8 mm). Installation shall permit ease of replacement. All wiring harnesses over 5-feet (1.50 meters) long and containing at least five (5) wires shall include at least 2 or 10 percent excess wires whichever is greater for spares, excluding the battery cables. In addition, twelve (12) spare wires (excluding battery cables) shall be provided between the front and rear junction boxes. Wiring harnesses shall not contain wires of different voltages unless all wires within the harness are sized to carry the current and insulated for the highest voltage wire in the harness.

Wire insulation shall be maintained as close to the terminals as practicable. The requirements for double insulation shall be met by wrapping harnesses with plastic electrical tape or by sheathing all wires and harnesses with nonconductive, rigid or flexible conduit. Grommets of elastomeric materials shall be provided at points where wiring penetrates the metal structure. Wiring supports shall be nonconductive. Precautions shall be taken to avoid damage from heat, water, solvents, or chafing. Wiring length shall allow replacement of end terminals twice without pulling, stretching, or replacing the wire.

Except for those on large wires such as battery cables, terminals shall be crimped to the wiring. Terminals shall be full ring type or interlocking and corrosion-resistant. T-splices may be used when it is less than 25,000 circular mills of copper in cross-section: a mechanical clamp is used in addition to solder on the splice; the wire supports no mechanical load in the area of the splice; and the wire is supported to prevent flexing.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS61 **Bid Page No.** 92 **Bid Reference Specification No.** TS.7.6.5.1

Bid specification Requirement:

" All motors shall be brushless."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Brushless motors

Description of product offered for approved equal:
MCI requests approval to provide our standard brushless evaporator, condenser motors. Defroster, windshield wiper and washer and coolant pump are permanent magnet motors.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: The specification for all motors to be brushless is based on BCT's reduced maintenance needs.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS62 **Bid Page No.** 93 **Bid Reference Specification No.** TS 7.6.5.2

Bid specification Requirement:

The battery terminals and cables shall be color-coded with red for 12 and 24 volts positive and black for negative.

Request for Approved Equal:

Manufacturer Offered: Batteries

Model No./Product: Color-Code

Description of product offered for approved equal:
MCI requests approval to provide our standard battery terminals which are color coded red for 24 volt blur for 12 volt and white for ground.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS63 **Bid Page No.** 93 **Bid Reference Specification No.** TS 7.6.5.3

Bid specification Requirement:

" a Knife" type switch…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc. (MCI)

Model No./Product: Rotary Master Battery Switch

Description of product offered for approved equal:
MCI request approval to provide our standard rotary style master battery switch.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS64 **Bid Page No.** 94 **Bid Reference Specification No.** TS 7.7.1

Bid specification Requirement:

Capacity and Performance

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Air Conditioning

Description of product offered for approved equal:
MCI requests approval to provide our standard air conditioning system which has been provided as a separate attachment.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: All electric motors which are a part of the climate control system shall be brushless ECDC motors. Heated front step is not required.

INTERIOR CLIMATE CONTROL
CAPACITY AND PERFORMANCE

The air conditioning portion of the HVAC system shall be capable of reducing the passenger compartment temperature from 110 degree F to 75 degree F plus or minus 3 in less than 30 minutes after system engagement.

The climate control system shall be highly reliable since most failures are Class 2. Manually controlled shut-off valves shall be installed in the refrigerant lines before and after the filter dryer to allow isolation of the dryer for service. Manually controlled shut-off valves in the refrigerant lines shall allow isolation of the receiver and compressor for service. Self-sealing couplings or manual shut-off valves shall be used to break and seal the refrigerant lines during removal of major components such as the refrigerant compressor or condenser. Condenser and evaporator fans shall have a protective guard to prevent contact between mechanics and rotating fan blades. The appropriate safety warning labels shall be permanently affixed at this location.

Interior climate control system shall be provided and operate on refrigerant 134a. It shall maintain the interior of the coach at a level suitable for climate conditions found in the continental United States. The heating, ventilating, and cooling systems shall maintain an average passenger compartment temperature between 60°F (16° C) and 80°F (27º C) with a relative humidity of 50 percent or less. The system shall maintain these conditions in a ambient temperature range of 10°F to 100°F (12º C to 38º C), with a ambient humidity range of 5 to 100 percent while the coach is running. In ambient temperatures of 95°F to 115°F (35º C to 46º C) with relative humidity greater than 50 percent, the system shall maintain a temperature gradient of 20°F (7º C) while the coach is running. In ambient temperatures of 10°F to -10°F (12º C to - 23º C), the average interior temperature shall not fall below 55°F (13º C) when he coach is running with no passengers.

The air conditioning (AC) compressor shall be a four cylinder, short stroke – 1.65 inch, 2.76 inch bore, 39.4 cubic inch (.65 liter) displacement with a 500 – 3500 RPM range MCI 003 (Bitzer 4NFC), or approved equal. The compressor head and body shall be of rust proof aluminum construction, providing a light weight, compact and efficient unit. The connecting rods shall be of one piece construction for easy, long-life maintenance. Exchangeable cylinder liners shall be used in the cylinder bores for long service life and easy and efficient maintenance. The compressor shall be belt driven through a bi-directional & maintenance free magnetic clutch. Modern, environmentally friendly chlorine free refrigerants can be used with the compressor.

Compressor drive belts shall be manufactured from Kevlar® material to provide longer service life. A manually adjustable belt tensioning device shall be provided to maintain proper belt tension.

The main air conditioning system capacity shall be at least 90,000 Btu's/hr. (26,376 W) with R134a. Driver's A/C capacity shall be at least 10,800 Btu's/hr. (3,165 W).

The condenser fan motors with shrouded axial fans shall be brushless type with totally enclosed grease lubricated bearings. Motor shall be 24 volt, minimum 2 horsepower (1.5 kw) and operate only when the

A/C is on for maximum efficiency. The condenser core shall be located to the rear of the number 2 baggage bay and include copper tubes and e-coated aluminum fins and have approximately 1,200 in^2 (7,742 cm^2) of condensing surface. The receiver tank shall be equipped with a refrigerant sight gauge to be viewed through a window in the left-hand number 3 baggage compartment.

The evaporator shall be mounted under floor in the same compartment as the heater core for "Reheat Cycle" and humidity control and shall include copper tubes and aluminum fins.

A separate control shall be provided for the front dash heating and air conditioning, as well as for the main under floor unit. A HVAC system control panel is required for the main under floor system. Control shall be within easy reach of the operator. The system shall allow the driver to set a specific interior coach temperature between the range of 60° F (16°C) and 80° F (27°C). The outside temperature can be displayed by switching between interior and exterior on the Micromate control panel. The HVAC controller shall monitor the temperature so that the interior temperature selected is maintained consistently. Where practicable, all controls shall be of a solid state design.

The system shall be designed with return air ducts at both front and rear of coach for balanced airflow. The system shall introduce a minimum of 10% fresh outside air when the fresh air intake is open.

Heat shall be applied to the front step tread to prevent accumulation of snow, ice, or slush. Stepwell heat shall be supplied and controlled by the driver's heater and defroster system. The manufacturer shall provide and install two Schraeder or MADDEN valves with caps near the air conditioning compressor.

All electric motors which are part of the climate control system shall be permanent magnet type, except the Condenser and Main Evaporator motors, which shall be brushless type. Motors shall have double sealed, pre-lubricated anti-friction, replaceable ball bearings with moisture resistant grease. 3/8 inch (10 mm) and 5/16 inch (8 mm) diameter zinc terminal studs with bonded internal motor leads and anti-rotation insulators shall be used except driver’s evaporator and parcel rack evaporators.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS65 **Bid Page No.** 96-107 **Bid Reference Specification No.** TS7.8-TS8.5

Bid specification Requirement:

Request for Approved Equal:

Manufacturer Offered: Electronic Equipment and Integration

Model No./Product:

Description of product offered for approved equal: MCI is interested in meeting the electronic requirements as specified. However, we requests further clarification on the following;

1. Is the County requesting the Contractor to purchase and install the Complete CAD AVL system

   Please confirm the supplier of the cad AVL system.

2. Is the County requesting the Contractor to purchase and install the complete mobile radio system

If the County requires the Contractor to install the above equipment MCI clarifies that we have not had enough time to review and evaluate all of the above requirements. MCI will continue to review these requirements and if any exceptions or modifications are required we will include these in our proposal.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only **CLARIFICATION**
Broward County Response: ☐ Approved ☐ Not Approved

Reasons Manufacturer shall purchase and install the Complete CAD AVL and Radio System as designed by ISR (Integrated Systems Research)
The **CAD AVL** specifications for the hardware that is required for each bus is listed below:

- CAD AVL Controller – SPM5000
- Mobile Data Terminal – MDT Touch
- Cabling Hardware for Single Sign-on and other Onboard Integration and Interface requirements to the CAD AVL Controller (e.g. Infodev, GTT TSP, APC, door sensors, Onboard Camera Surveillance, etc.)
- Yard Management System Ubisense Series 7000 Industrial Tags.
- Radio Control Unit Interface
- Equipment for Mobile Data Communications using Sierra Wireless 3G and 4G LTE Cellular Modem
- Employee ID Card Reader for Single Sign-On
- Battery Backup; if required for the onboard controllers
- Tri Brand Mobilemark Antenna
- Amplifier ISR PA470

The radio and communication system shall include several systems and shall be integrated as per Broward County Transit's overall plan. Following is information regarding the radio equipment that may be purchased and installed by the successful proposer. This is for the main UHF radio.

1. Motorola Radio Model XPR 4550 (450-512-Mhz, 40w, GPS with Connect Plus Operation (or approved equal).
2. Motorola Remote Mount Adapter Kit, PMLN5404 (or approved equal).
3. Model 2 Telephone Handset Kit HMN4098A (or approved equal).
4. Low Profile Antenna Antenex GPSD4501SP3-TL1
5. Motorola 5M Remote Cable Kit (PMKN4073A

The Bus Manufacturer will install a driver's handset **Motorola** Model 2 Telephone Handset Kit HMN4098A for driver use or approved equal.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.

Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. TS65A **Bid Page No.** 96-107 **Bid Reference Specification No.** TS7.8-TS8.5

Bid specification Requirement:

Request for Approved Equal: Manufacturer Offered: Mobile Radio System

Model No./Product:

Description of product offered for approved equal:
MCI wishes to clarify that we will provide all the conduits as requested with the exception conduits will all be ½ metal

In lieu of plastic color coded.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved
Reasons

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR1 **Bid Page No.** 107-109 **Bid Reference Specification No.** WR 1.1 - 1.1.7

Bid specification Requirement:

Coach Warranty

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI requests approval to provide our standard warranty as described on the attached. Additional warranties over and above those specified below are not available and cannot be provided.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only

Broward County Response: [ ] Approved [X] Not Approved

Reasons: Agree to warranty as noted with three exceptions:

- Please see exception on Start date for warranty. Warranty to begin on date of acceptance instead of date of delivery.
- Please see exception to maintain BCT standard Warranty rate of $95 per hour.
- BCT requires the extended (5) five year warranty for engines and transmission.

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SELLER'S LIMITED WARRANTY

Seller's Limited Warranty applies only to new coaches manufactured and sold by Seller for use in the territorial limits of Canada and the United States, including Hawaii and Alaska, excluding Puerto Rico, Guam and the Virgin Islands. This Limited Warranty is not assignable or otherwise transferable to subsequent owners of the Coach unless Seller receives either a properly completed Sale Notification form (a copy of which is in the Owner Limited Warranty Manual), or other documentation acceptable to Seller.

Seller agrees for the Warranty Term herein specified that, subject to certain exceptions, exclusions, and conditions noted below, Seller will repair or replace any defects in material and workmanship (not design) in the Coach. This Limited Warranty applies only to defects discovered during the Warranty Term, which, except as noted in the table below, shall be twelve (12) months, unlimited mileage, from the date of delivery of the new Coach to Buyer.

Complete Bus

1 year, 50,000 miles

Engine (warranted solely by the engine manufacturer)

5 years, 500,000 miles whichever occurs first

Transmission (warranted solely by the transmission manufacturer)

5 years, unlimited miles excluding transmission cooler

Drive Axle

1 year, 50,000 miles

MCI will quote on extended warranty pricing schedule (page 2of 2) with our proposal as requested on page 118 Paragraph 9.1.9 Extended Warranties

"Brake System (excluding Friction material)"

3 years, 150,000 miles

“Body and Chassis Structural Integrity”

3 years, 150,000miles

“Body and Chassis Corrosion Failure and/or Fatigue Failure causing a class one or class 2 failures only.

12 years, 500,000 miles

“Signs, Heat, A/C, doors, air compressor dryer, w/c lift, starter, alternator.”
3 years, 150,000miles
Buyer shall give Seller written notice of any defect occurring during the Warranty Term to which Buyer claims this Limited Warranty applies within thirty (30) days from the date such defect becomes apparent, specifying the nature of the claimed defect and the date it became apparent.

Seller’s obligation under this Limited Warranty is limited to (A) repairing or, at Seller’s option, replacing free of charge any parts that, in Seller’s reasonable opinion, have failed as a result of a defect in material or workmanship occurring during the Warranty Term under normal service conditions, provided that Buyer (i) has given Seller timely written notice of the defect; and (ii) upon Seller’s request, has returned the defective part(s) to Seller, transportation charges collect; and (B) crediting Buyer for the labor cost incurred in the removal and replacement of any such defective part(s) based on (i) the number of hours designated by Seller to be required for such work, ~~multiplied by (ii) 125% of the base rate for mechanical labor prevailing at Buyer’s garage~~ locale at the time of replacement, such base rate to have been previously approved by Seller.

THIS LIMITED WARRANTY IS FURTHER SUBJECT TO CERTAIN ADDITIONAL TERMS, CONDITIONS, AND EXCLUSIONS THAT ARE ATTACHED HERETO AND HEREBY INCORPORATED BY REFERENCE AS EXHIBIT A.

Buyer acknowledges that this Limited Warranty shall not apply to (A) any parts, components, materials, goods or services furnished or provided after Seller has completed its manufacturing processes with respect to the Coach; or (B) any routine maintenance repairs or replacements; or (C) normal wear and tear of the Coach; or (D) any other repairs or replacements that, in Seller’s reasonable opinion, are required because the Coach or any accessories or other equipment comprising the Coach:

(i) has been altered, modified, changed, reworked, or replaced in a manner that would likely affect serviceability in any respect; or
(ii) has been subject to abuse, neglect, or damage from an accident, or from intentional acts; or
(iii) has not been serviced and maintained at reasonable intervals according to Seller’s recommendations; or

(iv) has been operated at speeds in excess of Seller's and/or any component supplier's recommended maximum speed; or
(v) has had installed replacement parts not recommended by Seller and which have been substituted in such a way as to affect serviceability.

Seller reserves the right to audit Buyer's Coach warranty related records, including, but not limited to those regarding claims filed, maintenance records, and parts returned. Seller also reserves the right, in its sole discretion, to suspend its Limited Warranty obligations, including, but not limited to, putting Buyer's warranty account "on hold", and/or suspending or revoking Buyer's access to Seller's CCS system, during any period in which Buyer is not in compliance with its obligations under this Limited Warranty.

ENFORCEMENT OF THE FOREGOING OBLIGATIONS OF SELLER SHALL BE BUYER'S SOLE AND EXCLUSIVE REMEDY AGAINST SELLER WITH RESPECT TO THE COACH. THIS LIMITED WARRANTY AND SELLER'S OBLIGATIONS HEREUNDER ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL SELLER BE LIABLE FOR ANY OTHER OBLIGATIONS OR LIABILITIES, INCLUDING LIABILITY FOR ANY GENERAL, SPECIAL, DIRECT, INDIRECT, INCIDENTAL, PUNITIVE, ENHANCED, RELIANCE, OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER (INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS AND LOSS OF USE) WITH RESPECT TO THE SALE OR USE OF THE COACH. NO PERSON IS AUTHORIZED TO CHANGE OR OTHERWISE MODIFY THIS LIMITED WARRANTY OR ASSUME ANY OTHER LIABILITY ON BEHALF OF SELLER UNLESS SUCH CHANGE, MODIFICATION OR ASSUMPTION IS MADE IN WRITING AND SIGNED BY AN OFFICER OF SELLER.

MCI Emission-related Warranty

(a) General. MCI warrants to Buyer and each subsequent purchaser that the Coach, including all parts of its emission control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to Buyer with the requirements of 40 CFR Part 1037.

(2) It is free from defects in materials and workmanship that cause the Coach to fail to conform to the requirements of 40 CFR Part 1037 during the applicable warranty period.

The above warranty will be referred to as the "MCI Emission Warranty" in this document.

(b) The warranty period of the MCI Emission Warranty is as follows:

(1) Five (5) years from the date the Coach is first placed into service or 100,000 miles, whichever first occurs; and

(2) For tires, two (2) years from the date the Coach is first placed into service or 24,000 miles, whichever first occurs.

(c) Components covered. The MCI Emission Warranty covers emission-related components that are included in the certified emission controls. The MCI Emission Warranty covers the Coach's tires. The MCI Emission Warranty does not cover components whose failure would not increase the Coach's emissions of any regulated pollutant, nor does it cover tire tread wear.

(d) Warranty Exclusions. The MCI Emission Warranty does not cover any failures resulting from any improper maintenance or use, as described in *40 CFR §1068.115*.

EXHIBIT A

WARRANTY START DATE: Date of delivery of the new Coach to Buyer.

ADDITIONAL EXCLUSIONS/LIMITATIONS OF SELLER'S LIMITED WARRANTY

Air Bellows	36 months
Antennae	Not covered for breakage
Batteries	Covered only by battery manufacturer: one year pro-rated coverage
Belts	50,000 miles (80,467 km) or 6 months (whichever comes first)
Brake Rotors & Pads	Not covered as a primary failure
Brushless Motors	54 Months / 500,000 miles (whichever comes first)
Bumpers	5 years / 500,000 miles (whichever comes first), excludes paint
Coach Conversion	Parts, components, and services by third party not covered
Decals	Covers only decals furnished and applied by Seller. Coverage is subject to Seller's prior written approval based on photographic evidence of claimed defect and repair quotation to be submitted by Buyer.
Door Controls	5 years / 500,000 miles (whichever comes first)
Electrical Harness and Connectors	5 years / 500,000 miles (whichever comes first) (excludes labor for diagnostic tests)
Electrical Motors	Failure only; not brush replacement
Emission Controls and Emission System-related Parts	Covered by Seller's Limited Warranty as and only to the extent they are required to be covered by a vehicle manufacturer pursuant to the laws pertaining to the warranties applicable to emissions controls or emission system-related parts in effect at the date of manufacture, including the MCI Emission Warranty.
Engine	Covered only by engine manufacturer, 24 months
Engine Accessories	Alternator, alternator belt tensioner, and air compressor covered only by the engine or the engine accessory manufacturer (unless Seller separately furnished and installed such engine accessory), 24 months
Exterior Mirrors	Covered for loss of function only, not breakage
Goods and/or Services Supplied by Buyer	Not covered
King Pins	Bushings and seals not covered
Koni Shocks (including FSD)	300,000 miles (482,802 km) or 36 months (whichever comes first)
Light Bulbs	Not covered
LED Forward lighting	5 years / 500,000 miles (whichever comes first)– High, Low Beams and DRL/Turn Signal
Destination signs	Covered only by sign manufacturer

Paint	Covered only by paint supplier.
Passenger Seats, Interior Fabrics, and Seatbelts	Covered only by seat/fabric supplier
Pinion Seals	300,000 miles (482,802 km) or 36 months (whichever comes first)
Radius Rod Bushings	100,000 miles (160,934 km) or 24 months (whichever comes first)
Refrigerant	Not covered as a primary failure
Entertainment Systems	Parts covered only by system manufacturer. Labor reimbursed by Seller.
Roof Leaks	5 years / 500,000 miles (whichever comes first) Coverage is subject to Seller's prior written approval based on photographic evidence of claimed defect and repair quotation to be submitted by Buyer.
Shocks & Bushings	50,000 miles (80,467 km) or 1 year (whichever comes first)
Sway Bar Links	100,000 miles (160,934 km) or 24 months (whichever comes first)
Tires	Covered only by tire manufacturer, except for the MCI Emission Warranty
Towing/Roadside Service Calls*	50,000 miles (80,467 km) or 6 months (whichever comes first), reimbursement limited to $750.00/per occurrence and subject to additional conditions further explained below
Transmission	Covered only by transmission manufacturer, 24 months
V-Link Bushings	100,000 miles (160,934 km) or 24 months (whichever comes first)
Wheel Alignment	Covered only during the first 25,000 miles (40,234 km); thereafter not covered as a primary failure, i.e., covered only if alignment is necessary due to another covered warranty repair.
Wheel Seals, Pre-set (hub, wheel seal & bearings)	300,000 miles (482,802 km) or 36 months (whichever comes first)
Wheel Seals, Unitized (hub, wheel seal & bearings)	300,000 miles (482,802 km) or 36 months (whichever comes first)
Wheel Studs	Not covered
Windows/ Sash Assembly	Not covered for breakage due to stone chips or other road hazards. Any coverage is subject to Seller's prior written approval based on part return and/or photographic evidence of claimed defect, as requested by Seller. Buyer must also provide date code (located at bottom of window frame assembly, visible when opened or removed), window location (roadside or curbside of vehicle) and window position on vehicle.
Wiper Blades	Not covered

***Towing**/Roadside Service Calls**.** The towing/roadside service call must have been necessary due to a failure covered by the MCI Limited Warranty, and Buyer must have used good faith efforts to return the coach to service without using a towing service before requesting that the coach be towed. The costs of any towing/roadside repairs and road service calls are not included within the scope of the Limited Warranty unless the failure requiring the roadside service/towing is covered by the Limited Warranty.
Please consult the manufacturer of the engine, transmission, or other component not covered by MCI's Limited Warranty for any towing/roadside reimbursement such manufacturer may provide.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR2 **Bid Page No.** _____ **Bid Reference Specification No.** _____

Bid specification Requirement:

Request for Approved Equal:

Manufacturer Offered: _____

Model No./Product: _____

Description of product offered for approved equal:
MCI requests the County delete the second sentence of this paragraph. It is not feasible to provide a list of all the warranties and terms and conditions of the warranties offered by the numerous OEM parts provided on the coach. Any Superior warranty offered will be between the County and the original equipment supplier.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons: The extended warranties shall be purchased for the engine and transmission as part of the coach purchase.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR3 **Bid Page No.** 111 **Bid Reference Specification No.** WR1.1.9

Bid specification Requirement:

'… The applicable warranty shall be extended by the number of days equal to the delay period."

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty Extensions

Description of product offered for approved equal:
MCI requests that this sentence be deleted. Extensions to the original warranty are not in keeping with current FTA guidelines and current industry standards.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons: Language is in relation to the Fleet Defect program and is not applicable to the bid.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR4 **Bid Page No.** 111 **Bid Reference Specification No.** WR 1.3

Bid specification Requirement:

Exceptions and Additions to Warranty

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
Please refer to request # WR1 which details a list of routine maintenance not covered by our standard warranty.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR5 **Bid Page No.** 111 **Bid Reference Specification No.** WR 1.3.1

Bid specification Requirement:

Pass Through Warranty

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCi clarifies that engine transmission and electrical equipment such as fare boxes, and Cad AVL warranties would be handles directly with these companies.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR6 **Bid Page No.** 111 **Bid Reference Specification No.** WR 1.3.2

Bid specification Requirement:

Superior Warranty

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Superior Warranty

Description of product offered for approved equal:
MCI requests the County delete the second sentence of this paragraph. It is not feasible to provide a list of all the warranties and terms and conditions of the warranties offered by the numerous OEM parts provided on the coach. Any Superior warranty offered will be between the County and the original equipment supplier.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc.

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR7 **Bid Page No.** 111 **Bid Reference Specification No.** WR 2.2

Bid specification Requirement:

"If requested, begin work within two calendar days…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc. (MCI)

Model No./Product: Repairs by Coach Manufacturer

Description of product offered for approved equal:
MCI requests approval to change the above sentence to read If requested, begin work within **five** calendar days.

Five calendar days is more in keeping with current industry standards and allows the contractor sufficient time to address the warranty concerns.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR8 **Bid Page No.** 113 **Bid Reference Specification No.** WR 2.2

Bid specification Requirement:

" BCT reserves the to charge $200.00 per calendar day, per coach for all failures…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI requests that the requirement for liquidating damages for failure to correct a warranty defect in five days be deleted. It is not feasible for the contractor to correct all warranty related defects in five days as defects may require an engineering solution or a solution from one of the major suppliers. MCI cannot accept the $ 200.00 per day in liquidated damages.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: If no agreement - on how the warranty repair is to be made - is obtained within a five business day period (plus any approved extensions) BCT reserves the right to charge $200 per business day, per coach affected until warranty failure is corrected and the vehicle is placed back into revenue service.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

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Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR9 **Bid Page No.** 113 **Bid Reference Specification No.** WR 2.2

Bid specification Requirement:

" Liquidated damages of $100.00 per calendar day will be assessed if the coach remains out of service for …'

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI requests the above requirement be deleted as MCI cannot accept liquidated damages for the reasons as stated above.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.
Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR10 **Bid Page No.** _____ **Bid Reference Specification No.** WR2.3.2

Bid specification Requirement:

Coach Manufactured Supplied Parts

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI clarifies that any Contractor supplied parts under warranty must be purchased by the County who will then be reimbursed by the Contractor pending receipt of an approved warranty claim and return of the defective part.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved
Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR11 **Bid Page No.** 113 **Bid Reference Specification No.** WR2.3.2

Bid specification Requirement:

"Notification will be assed liquated damages at $ 100.00 per calendar day…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI cannot guarantee shipment shipment of all requested parts in five days. Certain Body parts resulting from accident damage or parts from major suppliers may take longer. As a result MCI requests the requirement for $ 100.00 per calendar day be deleted.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR12 **Bid Page No.** 113 **Bid Reference Specification No.** WR2.3.3

Bid specification Requirement:

Defective Component Return

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
As previously mentioned any Contractor supplied parts under warranty must be purchased by the County who will then be reimbursed by the Contractor pending receipt of an approved warranty claim and return of the defective part.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR13 **Bid Page No.** 113 **Bid Reference Specification No.** WR 2.3.3

Bid specification Requirement:

Last paragraph beginning with "The Coach Manufacturer…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI requests that this last paragraph be deleted in its entirety. As stated in section WR1.4.1 fleet defect do not apply on contracts smaller than 20 coaches.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR14 **Bid Page No.** 114 **Bid Reference Specification No.** WR 2.3.4

Bid specification Requirement:

"Such reports shall be delivered within 60 days of the receipt…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Failure Analysis

Description of product offered for approved equal:
MCI requests the above sentence be changed to read "Such reports shall be delivered within **90** days of the receipt…" Every effort will be undertaken to expedite this procedure, however, proper due diligence, and root cause analysis may take longer than 60 days.

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only
Broward County Response: ☒ Approved ☐ Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR15 **Bid Page No.** 114 **Bid Reference Specification No.** WR 2.3.5

Bid specification Requirement:

"… at a wage rate of $ 95.00 per hour…'

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI requests approval to provide a rate of no more than $ 80.00 per hour which is more in keeping with current Industry standards in that area.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: BCT requires $95 per hour warranty rate.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR16 **Bid Page No.** 114 **Bid Reference Specification No.** WR 2.3.5

Bid specification Requirement:

Towing and Service Charges

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
Please refer to request # TS 8 for details on MCI's towing inclusions. Additionally service calls are not reimbursable.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR17 **Bid Page No.** 114 **Bid Reference Specification No.** WR 2.3.6

Bid specification Requirement:

Shall include applicable taxes plus 20% handling

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Reimbursement for Parts

Description of product offered for approved equal:
MCI requests approval for our standard parts reimbursement which is 15% and does not include applicable taxes.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: BCT requires its standard 20% reimbursement for parts. BCT does not pay taxes.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR18 **Bid Page No.** 115 **Bid Reference Specification No.** WR 2.3.6

Bid specification Requirement:

" Proposer to pay the costs for expedited (air express) delivery…"

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Reimbursement for Parts

Description of product offered for approved equal:
MCI will pay the delivery costs for all parts shipment with the exception of special requests for expedited parts. Payment for special expedited shipment requests will be the responsibility of the County.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. WR19 **Bid Page No.** 115 **Bid Reference Specification No.** WR2.4.1

Bid specification Requirement:

Warranty Processing Procedures

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI aggress with the County's warranty processing procedure except road calls, and troubleshooting times are not covered.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. QA1 **Bid Page No.** 123 **Bid Reference Specification No.** QA 3.2.4

Bid specification Requirement:

Air Conditioning Test

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Warranty

Description of product offered for approved equal:
MCI requests approval to provide our standard Air Conditioning Test as described on the attached.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. QA2 **Bid Page No.** 124 **Bid Reference Specification No.** QA 4.2.2

Bid specification Requirement:

Repairs By The Agency

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Repairs by the Agency

Description of product offered for approved equal:
MCI requests approval as previously advised to provide a labor reimbursement rate of no more than

$ 80.00 hour and parts reimbursement of 15 % handling. Additionally taxes are not included in parts reimbursement.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: BCT requires its standard of $95 per labor hour for warranty work performed and 20% for parts handling reimbursement.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. SP1 **Bid Page No.** 125 **Bid Reference Specification No.** SP 2.1

Bid specification Requirement:

Manuals

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Manuals

Description of product offered for approved equal:
MCI clarifies that coach specific "as built" manuals would be cost prohibitive to provide for a contract of this size. MCI can provide our standard manuals which will include supplemental pages for the specific equipment ordered by the county.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons: Pricing shall be provided on the price sheet for available manuals. BCT will select which manuals it may need from those available. Please provide a copy of a 'standard' manual for evaluation along with your bid.

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. SP2 **Bid Page No.** 127 **Bid Reference Specification No.** SP 2.3

Bid specification Requirement:

Manuals

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Manuals

Description of product offered for approved equal:
MCI clarifies that Cross Reference part listing is not available and cannot be provided.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. SP3 **Bid Page No.** 129 **Bid Reference Specification No.** SP 4.2

Bid specification Requirement:

The following spare parts are to be included in the price of the coaches(and delivered with the first production coach)

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Components

Description of product offered for approved equal:
MCI will make every effort to expedite the requested spare components. However, we cannot guarantee that these components will all be delivered with the first production coach as we are dependent on our outside supplier base. Additionally we would request that these components be priced out separately as options as not included in the price of the coaches.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [ ] Approved [X] Not Approved

Reasons: BCT requires the first set of components are to be delivered with the bus delivery and priced with the buses. BCT has found that getting parts for new buses is often difficult and results in the buses being out of service for longer times. BCT needs these parts to respond to accidents and abnormalities that might occur before we could get parts through normal channels.

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. SP4 **Bid Page No.** 130 **Bid Reference Specification No.** SP4.3

Bid specification Requirement:

"During the request for approved equals phase, the Coach manufacturer shall recommend the absolute Minimum essential quantity of spare parts.

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Spare Parts

Description of product offered for approved equal:
MCI clarifies that we have not been provided an adequate amount of time to prepare this listing but we will provide this listing with our proposal. Additionally ,expected failure rates are subjective and cannot be provided.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons:

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PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

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Bidder to complete the following:

Company Name of Bidder: Motor Coach Industries, Inc. (MCI)

Contact Name/Title: Mark Reuter / Contracts Manager

E-mail: Mark.Reuter@MCIcoach.com Phone: 847-285-2105

Request No. SP5 **Bid Page No.** 130 **Bid Reference Specification No.** SP 5

Bid specification Requirement:

Liquidated Damages

Request for Approved Equal:

Manufacturer Offered: Motor Coach Industries, Inc.

Model No./Product: Liquidated Damages

Description of product offered for approved equal:
MCI requests that the above paragraph be deleted in its entirety. The County has protection as payment for parts would be due 30 days after receipt. MCI cannot guarantee the delivery performance of all the suppliers of the parts being requested.

Product Literature attached to this form: [ ] Yes [ ] No

For Broward County Use Only
Broward County Response: [X] Approved [ ] Not Approved

Reasons: **Clarification**
In lieu of Liquidated Damages, BCT will withhold payment for all components until the last component has been delivered.

Finance and Administration Services Department
PURCHASING DIVISION
115 S. Andrews Avenue, Room 212, Fort Lauderdale, Florida 33301 | 954-357-6066 | FAX 954-357-8535 | broward.org/Purchasing
Hours of Operation: Monday through Friday 8:30 a.m. to 5:00 p.m.

ADDENDUM NO. 1

Solicitation No.: V1197409B1
Solicitation Title: Commuter Coaches 45-Foot (NSM)

Date Of Addendum: February 14, 2014

Attention all potential bidders:

☐ Should Addendum: Information included in this Addendum is for clarification purposes. This Addendum SHOULD be acknowledged on the Bid Sheet Form or returned with your Bid submittal.

To all prospective bidders, please note the following changes and clarifications: Words in ~~strikethrough~~ type are deletions from existing text. Words in **bold underlined** type are additions to existing text.

1. The Bid Opening Date is revised as follows: The deadline for bid submission has been extended from February 26, 2014 to **Wednesday, March 05, 2014** at 2:00 p.m. Location remains the same.

2. The deadline for submission of a Request for Approved Equal (RFAE) has been extended from February 14, 2014 to **Friday, February 21, 2014**. Requests for Approved Equals must be submitted on Attachment "B", alternate format available, and delivered by email to the Purchasing Agent, Christine Calhoun at ccalhoun@broward.org no later than 5:00 p.m. EST on Friday, **February 21, 2014.**

3. An alternate format of Page 132 of 187, Attachment "B" Request for Approved Equal (RFAE) is available upon request to the Purchasing Agent, Christine Calhoun at ccalhoun@broward.org. Either format of the Attachment "B" RFAE form may be used.

4. Page 3 of 187 - Document Checklist is revised to include the following:
   Federal Funding Requirements
   ☐ Federal Funding Supplement applicable exhibits – Attachment "J"**, Exhibit 6 - Buy America Certification and Exhibit 11 - Transit Vehicle Manufacturer (TVM) Certification**

5. Page 10 of 187, Item 21 - Domestic Partnership Ordinance and Page 136 of 187, Attachment "E" - Domestic Partnership Certification Form are not applicable to this bid and are removed.

6. Page 13 of 187, Item 30 - Battery Disposal is not applicable to this bid and is removed.

7. Page 17 of 187, reference to "Group 2: Please indicate delivery time …" and "Group 3: Please indicate delivery time …" are deleted.

All other terms, conditions and specifications remain unchanged for this bid.

NAME OF COMPANY: _____

SUBMIT BID TO:

Broward County Purchasing Division
115 S. Andrews Avenue, Room 212
Fort Lauderdale, Florida 33301-1801
954-357-6066

BOARD OF COUNTY COMMISSIONERS
BROWARD COUNTY, FLORIDA

INVITATION FOR BID

Bidder Acknowledgment

— GENERAL CONDITIONS —

THESE INSTRUCTIONS ARE STANDARD FOR ALL CONTRACTS FOR COMMODITIES/SERVICES ISSUED BY THE BOARD OF COUNTY COMMISSIONERS. THE BOARD OF COUNTY COMMISSIONERS MAY DELETE, SUPERSEDE OR MODIFY ANY OF THESE STANDARD INSTRUCTIONS FOR A PARTICULAR CONTRACT BY INDICATING SUCH CHANGE IN THE SPECIAL INSTRUCTIONS TO BIDDERS OR IN THE BID SHEETS. BY ACCEPTANCE OF A PURCHASE ORDER ISSUED BY THE COUNTY, BIDDER AGREES THAT THE PROVISIONS INCLUDED WITHIN THIS INVITATION FOR BID SHALL PREVAIL OVER ANY CONFLICTING PROVISION WITHIN ANY STANDARD FORM CONTRACT OF THE BIDDER REGARDLESS OF ANY LANGUAGE IN BIDDER'S CONTRACT TO THE CONTRARY.

BIDDER ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH YOUR BID

SEALED BIDS: This form must be executed and submitted with all bid sheets and should be in a sealed envelope. (PLEASE INCLUDE ONE ORIGINAL SIGNED BID DOCUMENT IN BLUE INK AND ONE PHOTOCOPY OF SIGNED BID DOCUMENT PER ENVELOPE). The face of the envelope should contain the above address, the date and the time of bid opening, and bid number. Bids not submitted on attached bid may be rejected. All bids are subject to the conditions specified herein. Those which do not comply with these conditions are subject to rejection.

1. **EXECUTION OF BID:** A. Bid must contain an original signature of an individual authorized to bind the bidder. Bid must be typed or printed in ink. The ink should be blue ink. All corrections made by bidder to their bid must also be initialed. The bidder's name should also appear on each page of the bid sheet if required. B. No award will be made to a bidder who is delinquent in payment of any taxes, fees, fines, contractual debts, judgments, or any other debts due and owed to the County, or is in default on any contractual or regulatory obligation to the County. By signing and submitting this bid, bidder attests that it is not delinquent in payment of any taxes, fees, fines, contractual debts, judgments or any other debts due and owed to the County, nor is it in default on any contractual or regulatory obligation to the County. In the event the bidder's statement is discovered to be false, bidder will be subject to debarment and the County may terminate any contract it has with bidder. C. Bidder certifies by signing the bid that no principals or corporate officers of the firm were principals or corporate officers in any other firm which may have been suspended or debarred from doing business with Broward County within the last three years, unless so noted in the bid documents. D. By signing this bid, bidder attests that any and all statements, oral, written or otherwise, made in support of this bid, are accurate, true and correct. Bidder acknowledges that inaccurate, untruthful, or incorrect statements made in support of this bid may be used by the County as a basis for rejection of this bid, rescission of the award, or termination of the contract. Bidder acknowledges that the termination of the contract because of a determination of an inaccurate, untruthful, or incorrect statement made in support of this bid may also serve as the basis for debarment of bidder pursuant to Section 21-119 of the Broward County Administrative Code.
2. **BID WITHDRAWAL:** No Vendor may withdraw their bid before the expiration of one hundred and twenty (120) days from the date of the bid opening. Any bid submitted which alters the one hundred and twenty (120) day requirement shall be deemed non-responsive.

(Continued on Page 2)

BIDS WILL BE OPENED 2:00 p.m. February 26, 2014
and may not be withdrawn within 120 calendar days after such date and time.

BID TITLE
Commuter Coaches, 45-Foot / Non-Sheltered Market

BID NO. V1197409B1

PURCHASING AGENT NAME & TELEPHONE NUMBER
Christine Calhoun, 954- 357-6085

DELIVERY DATE

SEE SPECIAL INSTRUCTION

CASH DISCOUNT TERMS

BID GUARANTY IS ATTACHED, WHEN REQUIRED, IN THE AMOUNT OF $

REASON FOR NO BID

DUN & BRADSTREET NUMBER

BIDDER NAME

BIDDER MAILING ADDRESS/CITY/STATE/ZIP

AREA CODE TELEPHONE NO.	CONTACT PERSON
FAX NO.	BIDDERS E-MAIL ADDRESS

*AUTHORIZED SIGNATURE (submit original in blue ink) — DATE

PRINT NAME — TITLE

***I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same items/services, and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder. Further by signature of this form, pages 1 through 6 are acknowledged and accepted as well as any special instruction sheet(s) if applicable.**

3. **BID OPENING:** Shall be public, on date, location and time specified on the bid form. The official time is the time clock located in the Purchasing Division reception area and will be accepted by all parties without reservation. It is the bidder's responsibility to assure that their bid is delivered on date, location and time specified on the bid form. Bids, which for any reason are not so delivered, will not be considered. Bid files and any bids after they are opened may be examined during normal working hours by appointment. Bid tabulations are available for inspection upon request. Bid results will be posted on the Broward County web site at: www.broward.org/purchasing/results.

4. **ADDENDA TO BID:** Broward County reserves the right to amend this Invitation For Bid prior to the Bid opening date indicated. Only written addenda will be binding. If, upon review, material errors in specifications are found, contact the Purchasing Division immediately, prior to Bid opening date, to allow for review and subsequent clarification on the part of Broward County.

5. **PRICES, TERMS & PAYMENTS:** Firm prices shall be bid and include all handling, set up, shipping and inside delivery charges to the destination shown herein unless otherwise indicated.

   (a) **The Bidder:** in submitting this bid certifies that the prices quoted herein are not higher than the prices at which the same commodity(ies) or service(s) is sold in approximately similar quantities under similar terms and conditions to any purchaser whomsoever.

   (b) **F.O.B.** — as specified in Special Instructions to bidder.

   (c) **Tie Bids:** The award on tie bids will be decided by the Director of the Purchasing Division in accordance with the provisions of the Procurement Code.

   (d) **TAXES:** Broward County is exempt from Federal Excise and Florida Sales taxes on direct purchase of tangible property. Exemption numbers appear on purchase order. The Contractor shall pay all applicable sales, consumer, land use, or other similar taxes required by law. The Contractor is responsible for reviewing the pertinent State Statutes involving the sales tax and complying with all requirements.

   (e) **DISCOUNTS:** Bidders may offer a cash discount for prompt payment. However, such discounts will not be considered in determining the lowest net cost for bid evaluation purposes. Bidders should reflect any discounts to be considered in the bid evaluation in the unit prices bid.

   (f) **MISTAKES:** Bidders are cautioned to examine all specifications, drawings, delivery instructions, unit prices, extensions and all other special conditions pertaining to the bid. Failure of the bidder to examine all pertinent documents shall not entitle them to any relief from the conditions imposed in the contract. In case of mistakes in extension, the unit price shall govern. Multiplication or addition errors are deemed clerical errors and shall be corrected by the County.

   (g) **ORDERING:** The Board of County Commissioners reserves the right to purchase commodities/services specified herein through contracts established by other governmental agencies or through separate procurement actions due to unique or special needs. If an urgent delivery is required, within a shorter period than the delivery time specified in the contract and if the seller is unable to comply therewith, the Board of County Commissioners reserves the right to obtain such delivery from others without penalty or prejudice to the County or to the seller.

6. **OPEN-END CONTRACT:** No guarantee is expressed or implied as to the total quantity of commodities/services to be purchased under any open end contract. Estimated quantities will be used for bid comparison purposes only. The Board of County Commissioners reserves the right to issue purchase orders as and when required, or, issue a blanket purchase order for individual agencies and release partial quantities or, issue instructions for use of Direct Purchase Orders by various County agencies, or, any combination of the preceding. No delivery shall become due or be acceptable without a written order or shipping instruction by the County, unless otherwise provided in the contract. Such order will contain the quantity, time of delivery and other pertinent data. However, on items urgently required, the seller may be given telephone notice, to be confirmed by an order in writing.

7. **CONTRACT PERIOD (OPEN-END CONTRACT):** The initial contract period shall start with the expiration date of the previous contract or date of award, whichever is latest, and shall terminate one (1) year from that date. The contractor will complete delivery and the County will receive delivery on any orders mailed to the contractor prior to the date of expiration. The Director of Purchasing may renew this contract for a second period subject to vendor acceptance, satisfactory performance and determination that renewal will be in the best interest of the County. Notification of Intent to Renew will be mailed sixty (60) calendar days in advance of expiration date of this contract. All prices, terms and conditions shall remain firm for the initial period of the contract and for any renewal period unless subject to price adjustment specified as a "special condition" hereto.

In the event services are scheduled to end because of the expiration of this contract, the Contractor shall continue the service upon the request of the Director of Purchasing. The extension period shall not extend for more than ninety (90) days beyond the expiration date of the existing contract. The Contractor shall be compensated for the service at the rate in effect when this extension clause is invoked by the County.

8. **FIXED CONTRACT QUANTITIES:** Purchase order(s) for full quantities will be issued to successful bidder(s) after notification of award and receipt of all required documents. Fixed contract quantities up to twenty (20) percent of the originally specified quantities may be ordered prior to the expiration of one (1) year after the date of award, provided the Contractor agrees to furnish such quantities at the same prices, terms and conditions.

9. **AWARDS: If a specific basis of award is not established in the special instructions to bidders, the award shall be to the responsible bidder with the lowest responsive bid meeting the written specifications.** As the best interest of the Board of County Commissioners may require, the right is reserved to make award(s) by individual commodities/ services, group of commodities/services, all or none or any combination thereof. When a group is specified, all items within the group must be bid. A bidder desiring to bid "No Charge" on an item in a group must so indicate, otherwise the bid for the group will be construed as incomplete and may be rejected. However, if bidders do not bid all items within a group, the County reserves the right to award on an item by item basis. When a group bid is indicated for variable quantities and the bid for the group shows evidence of unbalanced bid prices, such bid may be rejected. The Director of Purchasing, or the Board of County Commissioners, whichever is applicable reserves the right to waive technicalities and irregularities and to reject any or all bids.

10. **PAYMENT:** Payment for all goods and services shall be made in a timely manner and in accordance with Florida Statutes, Section 218.70, Florida Prompt Payment Act and the Broward County Prompt Payment Ordinance (No. 89-49)

as amended. All applications for Payment shall be submitted to Broward County Accounting Division. Payment will be made by the County after commodities/services have been received, accepted and properly invoiced as indicated in contract and/or order. Invoices must bear the purchase order number.

11. **DELIVERY:** Delivery time shall be computed in calendar days from the issuance date of purchase order. Although, actual requested date or number of calendar days for delivery may be specified, state number of calendar days required to make delivery and installation after issuance of purchase order or request for services in space provided. Unless otherwise stipulated in the Contract, delivery shall be made between 9:00 a.m. and 4:00 p.m., Monday through Friday, except holidays, and at other time by special arrangements. However goods required for daily consumption, or where the delivery is an emergency, a replacement, or is overdue, the convenience of the Division shall govern. If, in calculating the number of calendar days from the order date, the delivery date falls on a Saturday, Sunday or holiday, delivery shall be made no later than next succeeding business day. Delivery time may be considered in determining award.

12. **TERMINATION:**

    (a) **AVAILABILITY OF FUNDS:** If the term of this contract extends beyond a single fiscal year of the County, the continuation of this Contract beyond the end of any fiscal year shall be subject to the availability of funds from the County in accordance with Chapter 129, Florida Statutes. The Broward County Board of County Commissioners shall be the final authority as to availability of funds and how such available funds are to be allotted and expended. In the event funds for this project/purchase are not made available or otherwise allocated Broward County may terminate this contract upon thirty (30) days prior written notice to the contractor.

    (b) **NON PERFORMANCE:** The Contract may be terminated for cause by the Awarding Authority for the County if the party in breach has not corrected the breach within ten (10) days after written notice from the aggrieved party identifying the breach. Cause for termination shall include, but not be limited to, failure to suitably perform the work, failure to suitably deliver goods in accordance with the specifications and instructions in this Bid, failure to continuously perform the work in a manner calculated to meet or accomplish the objectives of the County as set forth in this Bid, or multiple breach of the provisions of this Bid notwithstanding whether any such breach was previously waived or cured.

    (c) **TERMINATION FOR CONVENIENCE:** The Awarding Authority may terminate the Contract for convenience upon no less than thirty (30) days written notice. In the event the Contract is terminated for convenience, Bidder shall be paid for any goods properly delivered and services properly performed to the date the Contract is terminated; however, upon being notified of County's election to terminate, Bidder shall cease any deliveries, shipment or carriage of goods, and refrain from performing further services or incurring additional expenses under the terms of the Contract. In no event will payment be made for lost or future profits. Bidder acknowledges and agrees that ten dollars ($10.00) of the compensation to be paid by County, the adequacy of which is hereby acknowledged by Bidder, is given as specific consideration to Bidder for the County's right to terminate this Contract.

13. **CONDITIONS AND PACKAGING:** Unless otherwise stated in the special instructions to bidders or the bid sheets, or specifically ordered from an accepted price list, deliveries must consist only of new and unused goods and shall be the current standards production model available at the time of the bid. The goods must be suitably packaged for shipment by common carrier. Each container or multiple units or items otherwise packaged shall bear a label, imprint, stencil or other legible markings stating name of manufacturer or supplier, purchase order number and any other markings required by specifications, or other acceptable means of identifying vendor and purchase order number.

14. **SAFETY STANDARDS:** Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards thereunder. In compliance with Chapter 442, Florida Statutes, any toxic substance listed in Section 38F-41.03 of the Florida Administrative Code delivered from a contract resulting from this bid must be accompanied by a Material Safety Data Sheet (MSDS). A Material Safety Data Sheet (MSDS) should also be submitted to the Broward County Risk Management Division, 115 South Andrews Avenue, Room 210, Fort Lauderdale, Florida 33301-1803. The MSDS must include the following information.

    (a) The chemical name and the common name of the toxic substance.

    (b) The hazards or other risks in the use of the toxic substance, including:

        1. The potential for fire, explosion, corrosivity, and reactivity;
        2. The known acute and chronic health effects of risks from exposure, including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance; and
        3. The primary routes of entry and symptoms of overexposure.

    (c) The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of overexposure.

    (d) The emergency procedure for spills, fire, disposal, and first aid.

    (e) A description in lay terms of the known specific potential health risks posed by the toxic substance intended to alert any person reading this information.

    (f) The year and month, if available, that the information was compiled and the name, address, and emergency telephone number of the manufacturer responsible for preparing the information.

15. **MANUFACTURERS** NAME AND APPROVED EQUIVALENTS: Manufacturer's names, trade names, brand names, information and/or catalog numbers listed in a specification are for information and establishment of quality level desired and are not intended to limit competition unless otherwise specified in the bid. The bidder may offer any brand which meets or exceeds the specifications for any item(s). If bids are based on equivalent products, indicate on the bid form the manufacturer's name and catalog number. Bidder shall submit with the bid complete descriptive literature and/or specifications. The bidder should also explain in detail the reason(s) why and submit proof that the proposed equivalent will meet the specifications and not be considered an exception thereto. Broward County Board of County Commissioners reserves the right to be the sole judge of what is equal and acceptable. Bids which do not comply with these requirements are subject to rejection. If Bidder fails to name a substitute it will be assumed that the bidder will furnish goods identical to bid standard.

16. **INTERPRETATIONS:** Any questions concerning conditions and specifications of this bid shall be directed in writing to the Purchasing Division a minimum of **seven (7) business days** prior to bid opening. No interpretation(s) shall be considered binding unless provided to all Bidders in writing by the Director of Purchasing.

17. **NON-CONFORMANCE TO CONTRACT CONDITIONS:** The County may withhold acceptance of, or reject any items which are found, upon examination, not to meet the specification requirements. Upon written notification of rejection, items shall be removed within five (5) calendar days by the Vendor at their expense and redelivered at their expense. Rejected goods left longer than thirty (30) days will be regarded as abandoned and the Board shall have the right to dispose of them as its own property. On foodstuffs and drugs, no written notice or rejection need be given. Upon verbal notice to do so, the Vendor shall immediately remove and replace such rejected merchandise at their expense. Rejection for non-conformance, failure to provide services conforming to specifications, or failure to meet delivery schedules may result in contractor being found in default.

18. **INSPECTION, ACCEPTANCE AND TITLE:** Inspection and acceptance will be at destination. Title and risk of loss or damage to all items shall be the responsibility of the contractor until accepted by the County.

19. **GOVERNMENTAL RESTRICTIONS:** In the event any governmental restrictions may be imposed which would necessitate alteration of the material quality, workmanship or performance of the items offered on this bid prior to their delivery, it shall be the responsibility of the successful bidder to notify the County at once, indicating in their letter the specific regulation which required an alteration. The Board of County Commissioners reserves the right to accept any such alteration, including any price adjustments occasioned thereby, or to cancel the contract at no further expense to the County.

20. **LEGAL REQUIREMENTS:** Applicable provisions of all Federal, State of Florida, County and local laws, and of all ordinances, rules and regulations including the Procurement Code of Broward County shall govern development, submittal and evaluation of bids received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a bid in response hereto and Broward County by and through its officers, employees and authorized representative, or any other person natural or otherwise in addition to any resultant agreement. Lack of knowledge by any bidder shall not constitute a recognizable defense against the legal effect thereof.

21. **INDEMNIFICATION:** BIDDER shall at all times hereafter indemnify, hold harmless and, defend COUNTY, its officers, agents, servants, and employees from and against any and all causes of action, demands, claims, losses, liabilities and expenditures of any kind, including attorney fees, court costs, and expenses, caused or alleged to be caused by intentional or negligent act of, or omission of, BIDDER, its employees, agents, servants, or officers, or accruing, resulting from, or related to the subject matter of this Agreement including, without limitation, any and all claims, losses, liabilities, expenditures, demands or causes of action of any nature whatsoever resulting from injuries or damages sustained by any person or property. In the event any lawsuit or other proceeding is brought against COUNTY by reason of any such claim, cause of action or demand, BIDDER shall, upon written notice from COUNTY, resist and defend such lawsuit or proceeding by counsel satisfactory to COUNTY or, at COUNTY's option, pay for an attorney selected by County Attorney to defend COUNTY. To the extent considered necessary by the Contract Administrator and the County Attorney, any sums due BIDDER under this Agreement may be retained by COUNTY until all of COUNTY's claims for indemnification pursuant to this Agreement have been settled or otherwise resolved; and any amount withheld shall not be subject to payment of interest by COUNTY. The provisions and obligations of this section shall survive the expiration or earlier termination of this Agreement.

22. **NOTICE:** Written notice provided pursuant to this Contract shall be sent by certified United States Mail, postage prepaid, return receipt requested, or by hand-delivery with a request for a written receipt of acknowledgment of delivery, addressed to the party for whom it is intended at the place last specified. The place for giving notice shall remain the same as set forth herein until changed in writing in the manner provided in this section. For the present, the County designates:

    Director, Broward County Purchasing Division
    115 S. Andrews Avenue, Room 212
    Fort Lauderdale, FL 33301-1801

    Bidder shall identify in the Bid a designated person and address to whom notice shall be sent when required by the Contract.

23. **JURISDICTION, VENUE, WAIVER OF JURY TRIAL:** The Contract shall be interpreted and construed in accordance with and governed by the laws of the state of Florida. Any controversies or legal problems arising out of the Contract and any action involving the enforcement or interpretation of any rights hereunder shall be submitted to the jurisdiction of the State courts of the Seventeenth Judicial Circuit of Broward County, Florida, the venue situs, and shall be governed by the laws of the state of Florida. By entering into this Contract, Bidder and County hereby expressly waive any rights either party may have to a trial by jury of any civil litigation related to this Contract.

24. **PATENTS AND ROYALTIES:** The bidder, without exception, shall indemnify and save harmless and defend the County, its officers, agents and employees from liability of any nature or kind, including but not limited to attorney's fees, costs and expenses for or on account of any copyrighted, patented or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the County. If the bidder uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work. This provision shall survive the expiration or earlier termination of the contract.

25. **ASSIGNMENT, SUBCONTRACT:** Contractor shall not transfer, convey, pledge, subcontract or assign the performance required by this bid without the prior written consent of the Director of Purchasing. Any Award issued pursuant to this bid invitation and the monies which may become due hereunder are not assignable, transferrable, or otherwise disposable except with the prior written consent of the Director of Purchasing.

26. **QUALIFICATIONS OF BIDDER:** Bids will be considered only from firms normally engaged in providing the types of commodities/services specified herein. The Director of Purchasing or the Board of County Commissioners, reserves the right to inspect the facilities, equipment, personnel and organization or to take any other action necessary to determine ability to perform in accordance with specifications, terms and conditions. The Director of Purchasing or the Board of County Commissioners will determine whether the evidence of ability to perform is satisfactory and reserves the right to reject bids where evidence or evaluation is determined to indicate inability to perform. The Director of Purchasing or the Board of County Commissioners reserves the right to

consider a bidder's history of citations and/or violations of Environmental regulations in determining responsibility. Bidder should submit with his proposal a complete history of all citations and/or violations notices and dispositions thereof. Failure of a Bidder to submit such information may be grounds for termination of any contract awarded to successful Bidder. Bidder shall notify the County immediately of notice of any citations or violations which they may receive after the Bid or Proposal opening date and during the time of performance under any Contract awarded to them.

27. **EQUAL EMPLOYMENT OPPORTUNITY:** No Contractor shall discriminate against any employee or applicant for employment because of race, religion, age, color, sex or national origin, sexual orientation (including but not limited to Broward County Code, Chapter 16½), marital status, political affiliation, disability, or physical or mental handicap if qualified. Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during their employment without regard to their race, religion, age, color, sex or national origin, sexual orientation, marital status, political affiliation, disability, or physical or mental handicap. Such actions shall include, but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection of training, including apprenticeship. The Contractor agrees to post in conspicuous places available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.

    The contractor selected to perform work on a County project must include the foregoing or similar language in its contracts with any subcontractors or sub consultants, except that any project assisted by U.S. Department of Transportation funds shall comply with the non-discrimination requirements in Title 49 C.F.R. Parts 23 and 26, as amended. The Subcontractors, if any, will be made aware of and will comply with this nondiscrimination clause. Failure to comply with above requirements is a material breach of the contract, and may result in the termination of this contract or such other remedy as the County deems appropriate.

28. **MODIFICATIONS:** All changes to purchase orders shall be by issuance of a change order. Any modifications or changes to any contract entered into as a result of this bid must be by written amendment with the same formality and of equal dignity prior to the initiation of any such change.

29. **RESOLUTION OF PROTESTED SOLICITATIONS AND PROPOSED AWARDS:** In accordance with Sections 21.118 and 21.120 of the Broward County Procurement Code, if a vendor intends to protest a solicitation or proposed award of a contract the following apply:

    (a) Any protest concerning the bid or other solicitation specifications, or requirements must be made and received by the County within seven (7) business days from the posting of the solicitation or addendum on the Purchasing Division's website. Such protest must be made in writing to the Director of Purchasing. Failure to timely protest bid specifications or requirements is a waiver of the ability to protest the specifications or requirements.

    (b) Any protest concerning a solicitation or proposed award above the authority of the Director of Purchasing, after the bid opening, shall be submitted in writing and received by the County within five (5) business days from the posting of the recommendation for award on the Purchasing Division's website.

    (c) Any actual or prospective bidder or offeror who has a substantial interest in and is aggrieved in connection with proposed award of a contract which does not exceed the amount of the award authority of the Director of Purchasing, may protest to the Director of Purchasing. The protest shall be submitted in writing and received within three (3) business days from the posting of the recommendation of award on the Purchasing Division's website.

    (d) For purposes of this section a business day is defined as Monday through Friday between 8:30am and 5:00pm. Failure to timely file a protest within the time prescribed for a solicitation or proposed contract award shall be a waiver of the vendor's right to protest.

    (e) As a condition of initiating any bid protest, the protestor shall present the Director of Purchasing a nonrefundable filing fee. The filing fee shall be based upon the estimated contract amount. For purposes of the protest, the estimated contract amount shall be the contract bid amount submitted by the protestor. If no contract bid amount was submitted, the estimated contract amount shall be the County's estimated contract price for the project. The County may accept cash, money order, certified check, or cashier's check, payable to Broward County Board of Commissioners. The filing fees are as follows:

Estimated Contract Amount	Filing Fee
$30,000 - $250,000	$ 500
$250,001 - $500,000	$1,000
$500,001 - $5 million	$3,000
Over $5 million	$5,000

30. **PUBLIC ENTITY CRIMES ACT:** Bidder represents that its response to this invitation for bid will not violate the Public Entity Crimes Act, Section 287.133, Florida Statutes, which essentially provides that a person or affiliate who is a contractor, consultant or other provider who has been placed on the convicted vendor list following a conviction of a Public Entity Crime may not submit a bid on a contract to provide any goods or services to the County, may not submit a bid on a contract with the County for the construction or repair of a public building or public work, may not submit bids on leases of real property to the County, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with the County, and may not transact any business with the County in excess of the threshold amount provided in Section 287.017, Florida Statutes, for category two purchases for a period of 36 months from the date of being placed on the convicted vendor list. Bidder represents that its response to this Invitation For Bid is not a violation of Section 287.134, Florida Statues, which essentially states that the County, as a public entity, cannot do business with an entity that is on the "discriminatory vendor list" i.e., has been found by a court to have discriminated as defined therein. Violation of this section shall result in cancellation of the County purchase and may result in debarment.

31. **RECYCLED CONTENT INFORMATION:** In support of the Florida Waste Management Law, bidders are encouraged to supply with their bid, any information available regarding recycled material content in the products bid. The County is particularly interested in the type of recycled material used (such as paper, plastic, glass, metal, etc.); and the percentage of recycled material contained in the product. The County also requests information regarding any known or potential material content in the product that may be extracted and recycled after the product has served its intended purpose.

32. **PURCHASE BY OTHER GOVERNMENTAL AGENCIES:** Each Governmental unit which avails itself of this contract will establish its own contract, place its own orders, issue its own purchase orders, be invoiced therefrom and make its own payments and issue its own exemption certificates as required by the bidder. It is understood and agreed that Broward County is not a legally bound party to any contractual agreement made between any other governmental unit and the bidder as a result of this bid.

33. **PUBLIC RECORDS:** Any material submitted in response to this Invitation For Bid will become a public document pursuant to Section 119.071, Florida Statutes. This includes material which the responding bidder might consider to be confidential or a trade secret. Any claim of confidentially is waived upon submission, effective after opening pursuant to Section 119.071, Florida Statutes.

34. **AUDIT RIGHT AND RETENTION OF RECORDS:** County shall have the right to audit the books, records, and accounts of contractor that are related to this project. Contractor shall keep such books, records, and accounts as may be necessary in order to record complete and correct entries to the project.

    Contractor shall preserve and make available, at reasonable times for examination and audit by County, all financial records, supporting documents, statistical records, and any other documents pertinent to this agreement for the required retention period of the Florida Public Records Act (Chapter 119, Florida Statutes), if applicable, or if the Florida Public Records Act is not applicable, for a minimum period of three (3) years after termination of this Agreement. If any audit has been initiated and audit findings have not been resolved at the end of the retention period or (3) years, whichever is longer, the books, records and accounts shall be retained until resolution of the audit findings. If the Florida Public Records Act is determined by County to be applicable to contractor's records, contractor shall comply with all requirements thereof; however, no confidentiality or nondisclosure requirement of either federal or state law shall be violated by contractor. Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for County's disallowance and recovery of any payment upon such entry.

    The entire chapter of the Broward County Procurement Code describing the aforementioned subject matter can be obtained from the Purchasing Division's Website at: www.broward.org/purchasing.

35. **OWNERSHIP OF DOCUMENTS:** All finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, specifications and reports prepared or provided by CONSULTANT in connection with this Agreement shall become the property of COUNTY, whether the Project for which they are made is completed or not, and shall be delivered by CONSULTANT to Contract Administrator within fifteen (15) days of the receipt of the written notice of termination. If applicable, COUNTY may withhold any payments then due to CONSULTANT until CONSULTANT complies with the provisions of this section.

36. **STATE OF FLORIDA DIVISION OF CORPORATIONS REQUIREMENTS**: It is the vendor's responsibility to comply with all state and local business requirements. All vendors located within Broward County and/or providing a service within the County must have a current Broward County Local Business Tax Receipt (formerly known as an Occupational License Tax). All corporations and partnerships must have the authority to transact business in the State of Florida and be in good standing with the Florida Secretary of State. For further information, contact Broward County Records, Taxes and Treasury Division and the Florida Department of State, Division of Corporations.

    The County will review the vendor's business status based on the information provided in response to this solicitation. If the vendor is an out-of-state or foreign corporation or partnership, the vendor must obtain the authority to conduct business in the State of Florida. Corporations or partnerships that are not in good standing with the Florida Secretary of State at the time of a submission to this solicitation may be deemed non-responsible.

    If successful in obtaining a contract award under this solicitation, the vendor must remain in good standing throughout the contractual period of performance.

Finance and Administration Services Department
PURCHASING DIVISION
115 S. Andrews Avenue, Room 212, Fort Lauderdale, Florida 33301 | 954-357-6066 | FAX 954-357-8535 | broward.org/Purchasing
Hours of Operation: Monday through Friday 8:30 a.m. to 5:00 p.m.

ATTENTION

Dear Vendor:

Thank you for your interest in doing business with Broward County. We look forward to a very successful procurement process. This solicitation will consist of federally assisted funds and federal law requires Broward County to maintain a database of all firms that are participating or attempting to participate in federally assisted contracts. To assist the county in this endeavor, vendors are requested to submit the **Bidder's Opportunity List (Attachment " ")** with their reply to this solicitation. The list should include yourself as well as any prospective sub-contractor that you contacted or who has contacted you regarding this solicitation.

Please take notice of the response submittal requirements outlined in this solicitation. Read and follow the instructions very carefully, as any misinterpretation or failure to comply with instructions could lead to your submittal being rejected. Any change(s) to this solicitation will be conveyed through the written addenda process. Notifications of addenda are sent electronically to vendors registered under the applicable commodity code(s) at the time the original solicitation was created. In addition, all addenda are posted on the Purchasing Division's website, www.broward.org/purchasing which can be accessed by selecting Current Solicitations. Please read carefully and follow all instructions provided on the addendum, as well as the instructions provided in the original solicitation. **It is the responsibility of all potential vendors to monitor this site for any changing information prior to submitting their reply.**

It is the intent of the Purchasing Division to provide quality services. If you have any questions, please visit our website to view the information provided on "How to Do Business with Broward County – A Vendor's Guide," or feel free to contact the agent of concern. Again, thank you for your continued interest in doing business with Broward County.

Sincerely,

Brenda J. Billingsley, Director
Broward County Purchasing Division

PREVIOUS CONTRACT NO. _____ BID NO. V1197409B1

PURCHASING DIVISION
BOARD OF COUNTY COMMISSIONERS
BROWARD COUNTY, FLORIDA

Bid Submittal Summary Sheet for Public Reading

The purpose of this page is to facilitate the efficient and accurate reading of your bid submittal at the Bid Opening. Your cooperation is appreciated in completing the following information and ensuring that it is placed as the first page of your bid submittal. The information on this page does not take the place of the bid documents or the bid sheet. In the event that there is a discrepancy between the information on this page and the information in the bid sheet, the information on the bid sheet will prevail.

Bid Number V1197409B1

Bid Title: Commuter Coaches, 45-Foot

Name of Company: _____

Group 1 Total Extended Price of Base Bus (Year One): _____

DOCUMENT CHECKLIST:
The following items may be required to determine Bid responsiveness. Please ensure that all applicable items are completed and submitted with your Bid. Failure to meet the applicable requirements may render your Bid non-responsive. Additional information for these items can be found throughout this Bid document.

A. Bid/Addendum
- ☐ The Invitation for Bid must be signed in ink.
- ☐ If a **MUST** Addendum is required, it must be acknowledged on the Bid sheet or returned with your Bid.
- ☐ If a revised Bid sheet is required, it must be returned with the Addendum.

B. Group Items
- ☐ If a "Group" is specified, you must bid all items within each Group and indicate "No Charge" for those items that are included at no additional charge.

C. Bid Bond/Guaranty
- ☐ You must attach an original Bid Bond executed by a surety company, or alternate form of acceptable security.

D. Licensing
- ☐ Attach a copy of the specified contractor license(s)
- ☐ For items that require a licensed Contractor, your firm must possess a current State or County license, held by a qualifier registered with the State.
- ☐ If you hold a County license, and State registration is required, your license must be registered with the State.

E. Federal Funding Requirements
- ☐ Federal Funding Supplement applicable exhibits – Attachment "J"

ADDITIONAL ITEMS:
The following documents should be submitted with your bid, but no later than the time stated, upon request of the County.

A. Supplements/Attachments
- ☐ Non-Collusion Statement
- ☐ Copy of Broward County Local Business Tax Receipt (for Broward County Vendors)
- ☐ Vendor Questionnaire
- ☐ Vendors List (Non-Certified Sub-contractors/Suppliers) – Attachment "C"
- ☐ Bidder's Opportunity List – Attachment "D"
- ☐ Domestic Partnership Certification - Attachment "E"
- ☐ Drug Free Workplace Certification - Attachment "F"
- ☐ Scrutinized Companies Certification Form - Attachment "G"
- ☐ Self-Certification - Owner Ethnicity/Gender (Optional) Attachment "H"
- ☐ Certificate of Insurance, per sample attached - Attachment "I"
- ☐ Federal Funding Supplement applicable exhibits – Attachment "J"
- ☐ Florida Department of State Certificate of Proof of application (see: www.sunbiz.org)

*** All original Bids must be received in the Purchasing Division no later than 2:00 p.m. on the opening date specified. Late Bids will not be accepted. Please allow additional time for traffic and parking. This Checklist is for informational purposes only, it is not necessary to return.**

PURCHASING DIVISION
BOARD OF COUNTY COMMISSIONERS
BROWARD COUNTY, FLORIDA

SPECIAL INSTRUCTIONS TO BIDDERS (IN ADDITION TO GENERAL CONDITIONS)

Commuter Coaches, 45-Foot
(Non-Sheltered Market)

LIVING WAGE SERVICE CONTRACT YES ☐ NO ☒

SUBMISSION OF SEALED BIDS: The Invitation for Bid form must be executed and submitted with all bid sheets and should be in a sealed envelope. The original should be signed in blue ink. Both the original bid and one (1) photocopy of your bid should be included in a single envelope. Bid submittals should not be professionally bound using metal fasteners except for stapling. The Bidder is responsible for retaining a copy of all submittals for their own records. The face of the envelope should contain the company name, address, date and time of bid opening, bid number and bid title. Bids not submitted on bid sheets may be rejected. Bidder should not submit bids on their own form or any other form other than Broward County Bid Sheet. All bids are subject to the conditions specified herein. Bids which do not comply with these conditions are subject to rejection.

1. SCOPE:

Bids are hereby invited on an open-end basis for **COMMUTER COACHES, 45-FOOT** for the Transit Division and various other Broward County agencies that may have need of these services and products.

The initial contract period shall start on date of award, or upon expiration of the current contract, whichever is later and shall terminate one-year from that date. The Contractor will complete delivery and the County will receive delivery on any orders mailed to the contractor prior to the date of expiration.

All prices, terms and conditions shall remain fixed for the initial period of the contract. In addition, all prices, terms and conditions shall remain fixed for the renewal period of the contract.
Following the initial one-year period, price increases may be accepted by the Director of Purchasing for spare parts and regulatory changes only for the optional renewal period only in accordance with the procedure described in Section 26, Price Adjustment Clauses, of this document.

There will be no allowable price escalations for fuel costs throughout any contract period(s), unless otherwise specified in this document.

The Director of Purchasing may renew this contract for a one-year period subject to vendor acceptance, satisfactory performance and determination that renewal will be in the best interest of the County. Notification of intent to renew will sent in advance of expiration date of this contract.

No guarantee is expressed or implied as to the total quantity of commodities/services to be purchased under any open end contract. Estimated quantities will be used for bid comparison purposes only. The Board of County Commissioners reserves the right to: issue purchase orders as and when required, or, issue a blanket purchase order for individual agencies and release partial quantities or, issue instructions for use of Direct Purchase Orders by various County agencies, make random, open market purchases for any or all of the item(s) on any open end contract or, any combination of the preceding. No delivery shall become due or be acceptable without a written order by the County, unless otherwise provided for in the contract. Such order will contain the quantity, time of delivery and other pertinent data. However, on items urgently required, the seller may be given telephone notice, to

be confirmed by an order in writing.

2. SPECIFICATIONS AND REQUIREMENTS:
The specifications, requirements and services to be provided are stated in Attachment "A" attached hereto and made a part hereof.

3. CONTINGENCY FEES:
By submission of this offer, contractor certifies that no contingency fees (sometimes known as a finder's fee) has been paid to any person or organization other than a bona-fide employee working solely for the vendor to secure a contract made pursuant to this solicitation. Violation of this policy may result in termination of any resultant contract and/or possible debarment of the contractor.

4. FURTHER INFORMATION:

4.1. Bidders requiring additional information regarding any of the bid terms, conditions or administrative requirements should contact Christine Calhoun of the Purchasing Division at (954) 357-6085 or by email at ccalhoun@browrda.org .

4.2. Bidders requiring technical clarifications should contact Harold Tutt, of the Transit Division at 954-357-8441 or by email at htutt@broward.org. No change(s) and no interpretation(s) shall be considered binding unless provided to all bidders in writing by an addendum issued by the Purchasing Division.

4.3. The County is not obligated to respond to any questions received after deadline.

5. PRE-BID CONFERENCE:
Attendance at the site visit/pre-bid conference is optional. This information session presents an opportunity for bidders to clarify any concerns regarding the bid requirements. The bidder is cautioned that, although the site visits/Pre-Bid Conference is optional, no modification or any changes will be allowed in the pricing because of the failure of the bidder(s) to have visited the site or to have attended the conference.

Job site visitation is strongly recommended; submission of a bid will be construed that the bidder is acquainted sufficiently with the work to be performed.

Pre-Bid Conference

Date: **Friday, February 14, 2014**
Time: **9:00 a.m., EST**

Location: **Broward County Government Center**
115 South Andrews Avenue, Third Floor, Room 301
Fort Lauderdale, FL 33301

If you require any auxiliary aids for communication, please call 357-6066 so that arrangements can be made in advance.

6. REQUESTS FOR APPROVED EQUALS:
Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for Approved Equals must be submitted on the attached form (Attachment "B") and delivered by email to the Purchasing Agent, no later than 5:00 p.m. EST on Friday, February 14, 2014. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.

7. CONE OF SILENCE ORDINANCE:

7.1. In accordance with Broward County Ordinance No. 2011-06, Section 1-266, as amended, the Cone of Silence Ordinance provides that after the advertisement of the bid solicitation, potential vendors and their representatives are substantially restricted from communicating regarding the Bid with the County Administrator, Deputy County Administrator, Assistant County Administrator, Assistants to the County Administrator, their respective support staff, or any or any staff person that is to evaluate or recommend selection in this bid process. The Cone of Silence Ordinance further provides that after the bid opening for this solicitation, potential vendors and their representatives are substantially restricted from communicating regarding this Bid with the County Commissioners and their staff.

7.2. For Invitations for Bids, the Cone of Silence shall be in effect for staff involved in the award decision process at the time of the solicitation advertisement. The Cone of Silence shall be in effect for the Board of County Commissioners upon bid opening for the solicitation.

7.3. The Cone of Silence terminates when the County Commission or other awarding authority takes action which ends the solicitation.

7.4. Any violations of this ordinance by any member(s) of the responding firm or joint venture may be reported to the County's Office of Professional Standards. If there is a determination of violation, a fine shall be imposed against the vendor as provided in the County Code of Ordinances. Additionally, a determination of violation shall render any award to a vendor who is found to have violated the Ordinance voidable, at the sole discretion of the Board of County Commissioners.

8. PUBLIC RECORDS:

Broward County is a public agency subject to Chapter 119, Florida Statutes. As required by Chapter 119, Florida Statutes, the Contractor and all sub-contractors for services shall comply with Florida's Public Records Law. Specifically, the contractor and sub-contractors shall:

8.1. Keep and maintain public records that ordinarily and necessarily would be required by the County in order to perform the service;

8.2. Provide the public with access to such public records on the same terms and conditions that the County would provide the records and at a cost that does not exceed that provided in Chapter 119, Fla. Stat., or as otherwise provided by law;

8.3. Ensure that public records that are exempt or that are confidential and exempt from public record requirements are not disclosed except as authorized by law; and

8.4. Meet all requirements for retaining public records and transfer to the County, at no cost, all public records in possession of the contractor upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt. All records stored electronically must be provided to the County in a format that is compatible with the information technology systems of the agency.

8.5. The failure of Contractor to comply with the provisions set forth in this Article shall constitute a Default and Breach of this Contract and the County shall enforce the Default in accordance with the provisions set forth in the General Terms and Conditions, Article 12.

9. SECURITY REQUIREMENTS:

Not applicable to this bid.

10. OFFICE OF ECONOMIC AND SMALL BUSINESS REQUIREMENTS:
Not applicable to this solicitation.

11. FEDERAL TRANSIT ADMINISTRATION SUPPLEMENT: (Attachment "J")

11.1 The successful bidder is required to complete the applicable forms found in Attachment "J".

11.2 This bid has the following DBE numerical goals: Not applicable for this project.

11.3 Broward County requires that each transit vehicle manufacturer, as a condition of being authorized to bid or propose on FTA-assisted transit vehicle procurements, certify that it has complied with the requirements of Title 49 CFR 26.49.

12. INSURANCE REQUIREMENTS: (Sample Insurance Certificate - Attachment "I")

The insurance requirements designated in this bid indicate the minimum coverage required for the scope of work, as determined by the Risk Management Division. Vendor shall provide proper insurance, or a notarized letter of verification by the Vendor's insurance provider, which states the ability of the Vendor to obtain the required insurance within three (3) business days after request by the Purchasing Agent but prior to recommendation of award. Final award shall be subject to receipt and acceptance by the County of proof of meeting all insurance requirements of the bid.

Without limiting any of the other obligations or liabilities of Vendor, Vendor shall provide, pay for, and maintain in force until all of its work to be performed under this Contract has been completed and accepted by County (or for such duration specified), at least the minimum insurance coverage and limits set forth in the attachment under the following conditions listed below. **If a limit or policy is not indicated on Attachment "I" by a checkbox, it is not required as a condition of this contract**.

12.1. Commercial General Liability with minimum limits per occurrence, combined single limit for bodily injury and property damage, and when indicated a minimum limit per aggregate. County is to be expressly included as an Additional Insured in the name of Broward County arising out of operations performed for the County, by or on behalf of Vendor, or acts or omissions of Vendor in connection with general supervision of such operation. If Vendor uses a subcontractor, then Vendor shall ensure that subcontractor names County as an Additional Insured.

12.2. Business Automobile Liability with minimum limits per occurrence, combined single limit for bodily injury and property damage. Scheduled autos shall be listed on Vendor's certificate of insurance.
Note: This requirement does not apply if Vendor does not own a vehicle, where performance of services does not require the use of a business automobile or where delivery will be by common carrier also known as a third-party carrier.

12.3. Workers' Compensation insurance to apply for all employees in compliance with Chapter 440, the "Workers' Compensation Law" of the State of Florida and all applicable federal laws. The policy must include Employers' Liability with minimum limits each accident. If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen & Harbor Workers Act and Jones Act.

12.4. Excess Liability/Umbrella Insurance may be used to satisfy the minimum liability limits required; however, the annual aggregate limit shall not be less than the highest "each occurrence" limit for the underlying liability policy. Vendor shall endorse County as an Additional Insured unless the policy provides coverage on a pure/true "Follow-form" basis.

12.5. Builder's Risk or equivalent coverage (such as Property Insurance or Installation Floater) is required as a condition precedent to the issuance of the Second Notice to Proceed for projects involving but not limited to: changes to a building's structural elements, work compromising the exterior of the building for any extended period of time, installation of a large single component, or remodeling where the cost of remodeling is 20% or more the value of the property. Coverage shall be, "All Risks" Completed Value form with a deductible not to exceed Ten Thousand Dollars ($10,000.00) each claim for all perils except for wind and flood.

12.5.1. For the peril of wind, the Vendor shall maintain a deductible that is commercially feasible which does not exceed five percent (5%) of the value of the Contract Price. Such Policy shall reflect Broward County as an additional loss payee.

12.5.2. For the peril of flood, coverage must be afforded for the lesser of the total insurable value of such buildings or structures, and the maximum amount of flood insurance coverage available under the National Flood Program. Vendor shall maintain a deductible that is commercially feasible and does not exceed five percent (5%) of the value of the Contract Price. Such Policy shall reflect Broward County as an additional loss payee.

12.5.3. The County reserves the right to provide Property Insurance covering the Project, materials, equipment and supplies intended for specific installation in the Project while such materials, equipment and supplies are located at the Project site, in transit, or while temporarily located away from the Project site. This coverage will not cover any of the Vendor's or subcontractors' tools, equipment, machinery or provide any business interruption or time element coverage to the contractor(s).

12.5.4. If the County decides to purchase Property Insurance or provide for coverage under its existing insurance policy for this Project, then the insurance required to be carried by the Vendor may be modified to account for the insurance being provided by the County. Such modification may also include execution of Waiver of Subrogation documentation.

12.5.5. In the event that a claim occurs for this Project and is made upon the County's insurance policy, for other than a windstorm, Vendor will pay at least Ten Thousand Dollars ($10,000.00) of the deductible amount for such claim.

12.5.6. Waiver of Occupancy Clause or Warranty - Policy must be specifically endorsed to eliminate any "Occupancy Clause" or similar warranty or representation that the building(s), addition(s) or structure(s) in the course of construction shall not be occupied without specific endorsement of the policy. The Policy must be endorsed to provide that the Builder's Risk coverage will continue to apply until final acceptance by County.

12.6. Pollution Liability or Environmental Impairment Liability: including clean-up costs, with minimum limits per claim, subject to a maximum deductible per claim. Such policy shall remain in force for the minimum length of time indicated, include an annual policy aggregate and name Broward County as an Additional Insured. Vendor shall be responsible for all deductibles in the event of a claim.

12.7. Professional Liability Insurance with minimum limits for each claim, subject to a maximum deductible per claim. Such policy shall remain in force for the minimum length of time indicated. Vendor shall notify County in writing within thirty (30) days of any claim filed or made against its Professional Liability Insurance policy. Vendor shall be responsible for all deductibles in the event of a claim. The deductible shall be indicated on the Vendor's Certificate of Insurance.

12.8. Coverage must be afforded on a form no more restrictive than the latest edition of the respective policy form as filed by the Insurance Services Office. If the initial insurance expires prior to the completion and acceptance of the Work, renewal certificates shall be furnished upon expiration. County reserves the right to obtain a certified copy of any insurance policy required by this Section within fifteen (15) calendar days of a written request by County.

12.9. Notice of Cancellation and/or Restriction -The policy(ies) must be endorsed to provide Broward County with at least thirty (30) days' notice of cancellation and/or restriction.

12.10. The official title of the Certificate Holder is Broward County. This official title shall be used in all insurance documentation.

12.11. Right to revise or reject. The County reserves the right, but not the obligation, to review and revise the insurance requirements at any time, not limited to deductibles, limits, coverage and endorsements.

13. SAMPLES, PRODUCT LITERATURE AND DESCRIPTIVE CATALOGUES:
Vendor should submit minimally three references with their submission but must submit required references within three (3) business days of request of the Purchasing Division. References should be from customers that have received like products or services from the bidder.

14. DELIVERY AND ACCEPTANCE:
Delivery time shall be computed in calendar days from the issuance date of purchase order. Although, actual requested date or number of calendar days for delivery may be specified, state on the Bid Sheet the number of calendar days required to make delivery and/or installation after issuance of purchase order or request for services.

However, goods required for daily consumption, or where the delivery is an emergency, a replacement, or overdue, the convenience of the Division shall govern. If, in calculating the number of calendar days from the order date, the delivery date falls on a Saturday, Sunday or holiday, delivery shall be made not later than next succeeding business day.

Delivery is FOB destination, freight included and is to be made to the following site(s):

Broward County Transit Division Attn: Harold Tutt 3201 W. Copans Road Pompano Beach, Florida 33069 (954) 357-8324

15. WARRANTY:
The bidder should specify any warranty applicable to the items bid. Refer to Attachment "A", Warranty Requirements.

16. BID GUARANTY:
Not applicable for this bid.

17. PERFORMANCE AND PAYMENT GUARANTY:
Not applicable for this bid.

18. QUALIFICATIONS OF SURETY:
Not applicable for this bid.

19. LOCAL BUSINESS TAX RECEIPT REQUIREMENTS:

All vendors maintaining a business address within Broward County must have and provide a copy of a current Broward County Local Business Tax Receipt prior to contract award. The Contractor should provide a copy of its Local Business Tax Receipt within three (3) business days after request by the Purchasing Agent but prior to award by the Director of Purchasing or recommendation of award to the Board of County Commissioners, whichever is applicable. Failure to do so may result in your bid being deemed non-responsive. For further information on obtaining or renewing your firm's Local Business Tax Receipt, contact the Records, Taxes and Treasury Division at (954) 357-6200.

20. LIVING WAGE ORDINANCE:

Not applicable for this bid.

21. DOMESTIC PARTNERSHIP ORDINANCE: (Attachment "E")

The Domestic Partnership Act, Section 16 ½ -157, Broward County Code of Ordinances, as amended, requires all Vendors contracting with the County, in an amount over $100,000 provide benefits to Domestic Partners of its employees, on the same basis as it provides benefits to employees spouses, with certain exceptions as provided by the Ordinance. The completed and signed Domestic Partnership Certification Form should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

22. CONTRACTOR RESPONSIBILITIES:

22.1. The CONTRACTOR will be responsible for the provision, installation and performance of all equipment, materials, services, etc. offered in his or her Bid. The CONTRACTOR is in no way relieved of the responsibility for the performance of all equipment furnished, or of assuring the timely delivery of materials, equipment, etc. even though it is not of his or her own manufacture.

22.2. CONTRACTOR shall perform the Work with its own organization, amounting to not less than twenty-five percent (25%) of the Contract Price.

22.3. The Contract Administrator will document the contractor's performance by completing a Vendor Performance Evaluation Form. A blank Performance Evaluation Form may be viewed at: http://www.broward.org/Purchasing/documents/vendorperformanceevaluationrequirements.pdf and will be completed by the Contract Administrator based upon the following factors:

i. For any fixed construction or services contract valued at $50,000 or more upon completion of the contract.
ii. For any hardware or software implementation contracts valued at $20,000 or more as part of the final acceptance.
iii. For any fixed commodities contract valued at $250,000 or more upon complete delivery of the commodities
iv. For Master (open-end) Agreements and other continuing contracts by each using agency whose cumulative annual usage of the agreement exceeds $50,000, prior to any renewal, termination and upon the agreement expiration.
v. For Work Authorizations valued at $30,000 or more, issued under a Library of Professional Consultant Services, a Library of Environmental Consultant Services, or other two-party agreement, upon project completion.
vi. For contracts where the Office of Economic and Small Business Development (OESBD) has established goals, based on compliance with established goals and requirements.
vii. The Contract Administrator may also initiate an interim evaluation at any time during the term for any contract.

23. SUBCONTRACTING:

The Contractor shall submit a listing of all non-certified subcontractors, if any, and the portion of the

Project they will perform (Vendors List - Attachment “C”) within three (3) business days of request by County and prior to award. This list shall be kept up-to-date for the duration of the project and shall include major material suppliers to the Prime that provide construction material for construction contracts or commodities for service contracts in excess of $50,000 to the Contractor. If subcontractors are stated, this does not relieve the Contractor from the prime responsibility of full and complete satisfactory and acceptable performance under any awarded contract.

24. LITIGATION HISTORY REQUIREMENT

24.1. The County will consider a vendor's litigation history information in its review and determination of responsibility. All vendors are required to disclose to the County all "material" cases filed or resolved in the three (3) year period ending with the solicitation response due date, whether such cases were brought by or against the vendor, any parent or subsidiary of the vendor, or any predecessor organization. If the vendor is a joint venture, the information provided should encompass the joint venture (if it is not newly-formed for purposes of responding to the solicitation) and each of the entities forming the joint venture.

24.2. For purpose of this disclosure requirement, a “case” includes lawsuits, administrative hearings and arbitrations. A case is considered to be "material" if it relates, in whole or in part, to any of the following:

24.2.1. A similar type of work that the vendor is seeking to perform for the County under the current solicitation;
24.2.2. An allegation of negligence, error or omissions, or malpractice against the vendor or any of its principals or agents who would be performing work under the current solicitation;
24.2.3. A vendor's default, termination, suspension, failure to perform, or improper performance in connection with any contract;
24.2.4. The financial condition of the vendor, including any bankruptcy petition (voluntary and involuntary); or
24.2.5. A criminal proceeding or hearing concerning business-related offenses in which the vendor or its principals (including officers) were/are defendants.

24.3. Notwithstanding the descriptions listed in paragraphs 1 – 5 above, a case is not considered to be "material" if the claims raised in the case involve only garnishment, auto negligence, personal injury, or a proof of claim filed by the vendor.

24.4. For each material case, the vendor is required to provide all information identified in the form included in the Vendor Questionnaire.

24.5. A Vendor is also required to disclose to the County any and all case(s) that exist between the County and any of the vendor's subcontractors/subconsultants proposed to work on this project.

24.6. Failure to disclose any material case, or to provide all requested information in connection with each such case, may result in the vendor being deemed non-responsive. Prior to making such determination, the vendor will have the ability to clarify the submittal and to explain why an undisclosed case is not material.

25. MULTIPLE AWARDS:

Not applicable for this bid.

26. PRICE ADJUSTMENT:

26.1. Price Escalation Caused by increased Labor Costs (Inflation)

Not applicable for this bid.

26.2. Price Escalation Caused by Manufacturer's Price Increase

At the time the bid is submitted, the vendor must indicate on the bid sheet the manufacturer, the catalog number and its effective date on the products offered for this escalation clause to be applicable. A complete catalog must be provided within three (3) business days after being requested by the Purchasing Division.

If during the contract period the manufacturer issues and publishes revisions, supplements or replacement to the parts lists, catalogs and/or price lists initially submitted, the revisions and a request for price increase including the effective date must be sent to the Director of Purchasing, 115 South Andrews Avenue, Room 212, Ft. Lauderdale, Florida 33301. A copy of the revisions shall be forwarded by Contractor to Project Manager, at the same time notification is forwarded to the Director of Purchasing.

No price increase will be accepted during the initial contract period. Renewal terms allow for a request for an increase at the time of the optional renewal period based on vendor's cost increase not to exceed three percent for spare parts only. Written notification will be sent to the Contractor by the Director of Purchasing of the decision to accept or not accept the price increase. In the event of non-acceptance of such revision, the Contract will be deemed terminated as of the close of business the day prior to effective date of change as stated in Contractor's submission. If a price increase is accepted, the new prices will apply only to the orders placed after the acceptance by the County.

Any orders placed prior to the effective date will not be affected and will be invoiced at the price in effect at the time the order was placed. The Contractor will complete delivery and the County will receive delivery on any orders mailed to the Contractor prior to the termination date even if no increase is granted by the Director of Purchasing. Failure to complete delivery could cause the Contractor to be debarred from doing business with the County according to the Broward County Procurement Code Section 21.119, Authority to Debar or Suspend.

If during the above period, the manufacturer issues revisions reflecting a decrease in the price of any of the above parts, the vendor is to notify the Director of Purchasing of any Price Decreases within a thirty (30) calendar period of time. If the vendor does not notify, the Director of Purchasing may request a reduction in price from the vendor in writing prior to contract renewal or forty-five (45) calendar days prior to the proposed date of change. If the vendor does not agree to the decrease, a letter must be sent to the Director of Purchasing no later than thirty (30) days prior to the effective date of the proposed change. If the vendor fails to notify the Director of Purchasing of the non-acceptance within the time frame, it shall mean he concurs with it and the new prices will take effect. In the event of non-acceptance by the vendor of such revision, the contract will be deemed terminated as of the close of the business day prior to the proposed effective date of change.

26.3. Price Escalation Caused by Raw Material Cost Increase

Not applicable to this bid.

26.4. Price Escalation Caused by Regulatory Changes

If a price adjustment, either upward or downward, is requested by the Contractor for changes that are mandatory as a result of legislation or regulations that are promulgated and become effective after the award date of the contract, the price adjustment shall be negotiated between the County and the Contractor. The price adjustment may be audited where required by the County.

27. PREFERENCES:

Not applicable to this bid.

28. DRUG-FREE WORKPLACE CERTIFICATION:

Broward County Procurement Code Chapter 21.31.a. requires awards of competitive sealed bids and sealed proposals requiring Board Award be made only to firms certifying the establishment of a drug free workplace. The Drug Free Workplace Certification (Attachment "F") should be furnished within three (3) business days after request by the Purchasing Agent but prior to recommendation of award to the Board of County Commissioners. Failure to provide this certification will render your office unqualified and ineligible for award.

29. SPECIAL NOTICE:

In accordance with OSHA Regulation 29 CFR 1926.1101(k) (2), bidders are notified of the presence of asbestos containing material and/or presumed asbestos containing material at some Broward County locations.

30. BATTERY DISPOSAL:

In accordance with Florida 1993 Solid Waste Act, the manufacturers of heavy metal batteries or the manufacturers of products powered by such batteries are solely responsible for the reclamation and disposal of such used batteries as purchased by the County. The County shall not be held liable for any cost associated with the reclamation and disposal of such batteries.

31. DUN & BRADSTREET REPORT REQUIREMENT:

The COUNTY may review the bidder's rating and payment performance to assist in determining a bidder's responsibility when being evaluated for a contract award.

32. E-VERIFY PROGRAM CERTIFICATION (applicable only for State-funded contracts):

Not applicable to this bid.

33. SCRUTINIZED COMPANIES LIST

Any company, principals, or owners on the Scrutinized Companies with Activities in Sudan List or on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List is prohibited from submitting a response to a Broward County solicitation for goods or services in an amount equal to or greater than $1 million. Therefore, if applicable, each company submitting a response to a solicitation must certify to the County that it is not on either list at the time of submitting a bid. The certification form will only be attached to a solicitation if the estimated purchase amount is $1 million dollars or greater and should be submitted at the time of submitting a response; if not submitted with the bid it must be furnished within three (3) business days after request by the Purchasing Agent but prior to recommendation of award to the Board of County Commissioners. Under the circumstances, the County estimated purchase amount is no greater than $1 million dollars, but resulting contract is $1 million dollars or greater, the County will exercise the right to require firm to submit the certification form (Attachment "G") by the imposed deadline. In either case, failure to timely provide the certification shall deem the submittal non-responsive.

34. SELF-CERTIFICATION - OWNER ETHNICITY/GENDER (OPTIONAL)

Vendor is requested to fill out and submit Attachment "H". The information requested is voluntary and not a requirement to respond to a Broward County solicitation. However, in the event that your company becomes the recommend vendor for award, this information will be required prior to award. Recommended vendor for award must submit within three business days of County's request.

35. LIQUIDATED DAMAGES:

35.1 The work to be performed under this Contract shall be commenced upon issuance of Purchase Order, which will not be issued until receipt of all required documents.

35.2 The work shall be completed and ready for final payment within 180 calendar days after receipt of Purchase Order.

35.3 Upon failure of the Contractor to complete a project awarded pursuant to this contract within the specified period of time (plus approved extensions, if any) the Contractor shall pay to COUNTY the sum of **TWO HUNDRED Dollars ($200.00**) per bus for each calendar day (plus approved extensions) after the time specified for completion and readiness for final payment. This amount is not a penalty but liquidated damages to the COUNTY. Liquidated damages are hereby fixed and agreed upon between the parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the COUNTY as a consequence of such delay. Contractor acknowledges and agrees that damages to County from untimely completion are extremely difficult to determine, and accordingly the Contractor agrees that the amount of liquidated damages provided for herein is the nearest and most exact measure of damages for such delays.

35.4 The COUNTY is authorized to deduct liquidated damage amounts from the monies due to Contractor for the work under this contract, or as much thereof as the COUNTY may, at its own option, deem just and reasonable.

36. PAYMENT:

A Purchase Order will be issued to the successful bidder after award and after receipt of the documents specified herein. Payment for all goods and services shall be made in a timely manner and in accordance with Florida Statutes, Section 218.70, Florida Prompt Payment Act and the Broward County Prompt Payment Ordinance (No. 89-49), as amended. All Applications for Payment shall be submitted to the Transit Division. Final payment and release of retainage will be paid in full upon completion of all requirements.

Prior to the first Application for Payment, the Contractor shall submit to the COUNTY, a schedule of values of the various portions of the Work, aggregating the total Contract Sum. Each item in the schedule, when approved by the COUNTY, shall be used only as a basis for the CONTRACTOR'S Application for Payment.

Payment will be made by the County after commodities/services have been received, accepted and properly invoiced as indicated in the contractor and/or order. Invoice must state the purchase order number. Broward County reserves the right to perform a “Conditional Acceptance” and withhold 10% payment until such time as the product or service fully complies with the requirements of BCT. In the event that the bus does not meet all requirements for acceptance, BCT may, at its exclusive option, “conditionally accept” the bus and place it into revenue service pending receipt of Contractor furnished materials and/or labor necessary to effectuate corrective action for acceptance.

All buses, conditionally accepted, will be subject to forty (40) hours continuous revenue service without experiencing any malfunctions, as the requirement for releasing the 10% of final payment. BCT shall make a final payment for all withholding within 30 calendar days of receipt of final proper invoice and the following, less any amounts for liquidated damages in accordance with requirements of Attachment “A” and Section 33 of the General Terms and Conditions.

- Delivery and acceptance of all contract deliverables, including manuals, and other documentation required by the contract, excluding training.
- Rectification of any deficiencies found during the acceptance of the bus.
- Contractor provision of any certifications as required by law, regulations and/or the Invitation for Bid.
- Delivery of all spare components and manuals

37. NON-COLLUSION STATEMENT:

By signing this offer, the vendor certifies that this offer is made independently and free from collusion. Vendor shall disclose below, to their best knowledge, any Broward County officer or employee, or any relative of any such officer or employee as defined in Section 112.3135 (1) (c), Fla. Stat. (2012), who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement. Any Broward County officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement. For purposes hereof, a person has a material interest if he or she directly or indirectly owns more than 5 percent of the total assets or capital stock of any business entity, or if he or she otherwise stands to personally gain if the contract is awarded to this vendor.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the Broward County Procurement Code.

NAME	**RELATIONSHIPS**
_____	_____
	_____
	_____
_____	_____
	_____
	_____

In the event the vendor does not indicate any names/relationships by leaving the above section blank, the County shall interpret this to mean that the vendor has indicated that no such relationships exist.

NAME OF COMPANY: _____

BID SHEET

COMMUTER COACHES, 45-FOOT
(NON-SHELTERED MARKET)

TO: BOARD OF COUNTY COMMISSIONERS
BROWARD COUNTY, FLORIDA

All blanks have been filled in; BID SHEET is attached to the completed "Invitation for Bid" and returned herewith.

In accordance with the General Conditions, Special Instructions to Bidders, Specifications and Requirements, the undersigned bidder offers the following:

Basis of Award: This is a Group Award. A bidder must bid on all items within a Group to qualify for award of that Group, including items listed as "optional" or "renewal".

For the Group, the low bid will be determined by the Total Extended Price of the base bus for the initial one-year term.

The evaluation and award will be based on the Total Extended Price of the base bus as well as the optional/renewal items for the Group.

All prices will be part of the evaluation criteria and considered as a basis for award. Unbalanced, unfair, or unreasonable pricing may be reason for rejection of the bid.

The Minimum Quantity for all items is zero for the initial and, if exercised, optional renewal period.

During the initial term of the contract and any exercised renewal period, subject to the availability of funds, the County reserves the right to order up to the Maximum Quantity for the Group or order none within the Group depending on the availability of funds.

In accordance with the General Conditions, Special Instructions to Bidders, Technical Specifications and Requirements, the undersigned bidder offers pricing and services as per the Electronic Bid Pricing Sheet(s):
Instructions for completing the Electronic Bid Pricing Sheet(s):

1. Download the Electronic Bid Pricing Sheet(s), in Microsoft Excel format, from the Purchasing Division website at http://www.broward.org/Purchasing/Pages/CurrentSolicitationList.aspx. Respond to this bid by inputting the company's information and unit pricing into the formatted Excel spreadsheet. **Only the highlighted cells will be available for entering information.**

2. Once the Electronic Bid Pricing Sheet(s) are completed, bidder should save the Excel file to a CD or DVD in a **read-only** format. **Do not password protect the file and do not save it as a PDF.** Label the front of the disk with the bidder's name and bid number.

3. Print the completed Electronic Bid Pricing Sheet(s); sign and date where indicated.

4. Bidder must submit, in one envelope, the printed, signed Electronic Bid Pricing Sheet(s) with the bidder's complete, original bid submission as per the General Conditions and Special Instructions to Bidders and should include the CD/DVD (with the saved Excel file).

5. If bidder is unable to electronically fill out and submit Electronic Bid Pricing Sheet(s) with its bid submittal, bidder must submit a hardcopy of the Electronic Bid Pricing Sheet(s) with handwritten unit prices and extensions.

6. If the hardcopy of the Electronic Bid Pricing Sheet(s) does not match the Electronic Bid Pricing Sheet(s) submitted on the CD/DVD, the hardcopy prices shall prevail for any discrepancies in pricing. If hand-written bid Sheet(s) and electronic bid Sheet(s) are submitted, handwritten unit prices will prevail for any discrepancies in pricing.

7. It is the Bidder's responsibility to monitor the Purchasing Division's website for any issued addenda. Addenda may include revised Electronic Bid Pricing Sheet(s) that will need to be downloaded, properly filled out, and submitted by the Bidder.

8. The CD/DVD submitted with the bid will become County property; as such, it is submitted at no cost to the County.

9. If the Bidder believes there is an error in the Electronic Bid Pricing Sheet(s), Bidder must immediately notify the Purchasing Agent prior to the bid opening date.

Delivery shall be made between 8:00 a.m. and 5:00 p.m., Monday through Friday, except holidays. Delivery at other times shall be by special arrangement only.

Delivery is desired within 180 calendar days after receipt of a purchase order. Buses shall be delivered at a rate not-to-exceed five buses per week.

Vendor who cannot meet delivery requirements may be considered non-responsive. Delivery MUST be FOB destination, freight included and shall be inclusive of all costs. Current and/or anticipated applicable fuel costs should be considered and included in the price bid.

Group 1: Please indicate delivery time after receipt of Purchase Order: _____ calendar days.
Group 2: Please indicate delivery time after receipt of Purchase Order: _____ calendar days.
Group 3: Please indicate delivery time after receipt of Purchase Order: _____ calendar days.

Please indicate if delivery will be made by:

Common Carrier _____
Company Vehicle _____
Other _____

Bid results will be posted to the Broward County Purchasing website at http://www.broward.org/Purchasing/Pages/SolicitationResult.aspx

NAME OF COMPANY: _____

AUTHORIZED SIGNATURE:_____

By signing this bid sheet your firm is agreeing to the terms and conditions of the Invitation for Bid.

BID SHEET
(Continued)

COMMUTER COACHES, 45-FOOT
(NON-SHELTERED MARKET)

ADDENDA:
List below all addenda (identified by number) that your company has received and hereby acknowledges since issuance of this bid:

_____

_____

_____

PRICE ADJUSTMENT SECTION:

Price of _____ $_____ per _____

Date _____

Percentage (_____%) of final product attributable to _____ (Product)

NAME & ADDRESS OF SUPPLIER _____
_____
_____

NOTICE TO BIDDER: Be sure to have the Invitation for Bid/Bidder Acknowledgment Form (IFB) signed by an authorized representative of your firm or your bid will not be considered responsive.

NAME OF COMPANY: _____

VENDOR QUESTIONNAIRE

The completed Vendor Questionnaire should be submitted with the solicitation response but must be submitted within three business days of County's request. **Where a response requires additional information, the Vendor should attach a written detailed response; each response should be numbered to match the question number.** The completed questionnaire and attached responses will become part of the procurement record. It is imperative that the person completing the Vendor Questionnaire be knowledgeable about the proposing Vendor's business and operations. Failure to provide the completed questionnaire timely may result in the Vendor being deemed non-responsive.

1. LEGAL BUSINESS NAME:_____
2. FEDERAL EMPLOYER I.D. NO. (FEIN):_____
3. DUN AND BRADSTREET NO.:_____
4. DOING BUSINESS AS/ FICTITIOUS NAME (if applicable):_____
5. WEBSITE ADDRESS (if applicable): _____
6. PRINCIPAL PLACE OF BUSINESS ADDRESS:_____
   _____
7. TELEPHONE NO.: _____ FAX NO.: _____
8. TYPE OF BUSINESS (check appropriate box): ☐ Sole Proprietor ☐ Limited Liability Corporation (LLC)
   ☐ Corporation (Specify the State of Incorporation): _____
   ☐ Limited Partnership ☐ General Partnership (State and County filed in) _____
   ☐ Other – Specify _____
9. LIST NAME AND TITLE OF EACH PRINCIPAL, OWNER, OFFICER, AND MAJOR SHAREHOLDER:
   a) _____
   b) _____
   c) _____
   d) _____
10. AUTHORIZED CONTACT FOR YOUR FIRM:
    Name: _____ Title: _____
    Telephone Number: _____ Fax Number: _____
    E-mail:_____
11. Specify the type of services or commodities your firm offers: _____
    _____
12. How many years has your firm been in business while providing the services and/or products offered within this solicitation? _____

Name of Vendor: _____

13. Provide at least three (3) individuals, corporations, agencies, or institutions for which your firm has completed work of a similar nature or in which your firm sold similar commodities in the past three (3) years. Contact persons shall have personal knowledge of the referenced project/contract. ***Only one (1) Broward County Board of County Commissioners agency reference may be submitted.*** If any of the following references are inaccessible or not relevant, additional references may be requested by the County.

Reference No. 1:

Scope of Work:

Contract/Project Title:

Agency:

Contact Name/Title:

Contact Telephone: Email:

Contract/Project Dates (Month and Year):

Contract Amount:

Reference No. 2:

Scope of Work:

Contract/Project Title:

Agency:

Contact Name/Title:

Contact Telephone: Email:

Contract/Project Dates (Month and Year):

Contract Amount:

Reference No. 3:

Scope of Work:

Contract/Project Title:

Agency:

Contact Name/Title:

Contact Telephone: Email:

Contract/Project Dates (Month and Year):

Contract Amount:

Name of Vendor: _____

14. Is your firm's business regularly engaged in and routinely selling the product(s) or services offered within this solicitation? ☐ Yes ☐ No

15. Does your firm affirm that it is currently authorized by the manufacturer as a dealer/seller of the product(s) offered herein, and warranty offered is the manufacturer's warranty with Broward County recorded as the original purchaser? The County reserves the right to verify prior to a recommendation of award. ☐ Yes ☐ No ☐ N/A (if service)

16. Has your firm ever failed to complete any services and/or delivery of products during the last three (3) years? If yes, specify details in an attached a written response. ☐ Yes ☐ No

17. Is your firm or any of its principals or officers currently principals or officers of another organization? If yes, specify details in an attached a written response. ☐ Yes ☐ No

18. Have any voluntary or involuntary bankruptcy petitions been filed by or against your firm, its parent or subsidiaries or predecessor organizations during the last three years? If yes, specify details in an attached a written response. ☐ Yes ☐ No

19. Has your firm, its principals, officers or predecessor organization(s) been debarred or suspended by any government entity within the last three years? If yes, specify details in an attached a written response. ☐ Yes ☐ No

20. Has your firm's surety ever intervened to assist in the completion of a contract or have Performance and/or Payment Bond claims been made to your firm or its predecessor's sureties during the last three years? If yes, specify details in an attached a written response, including contact information for owner and surety company. ☐ Yes ☐ No

21. If requested, will your firm extend the same price, terms and conditions to other governmental entities during the period covered by this contract? ☐ Yes ☐ No

22. Would your firm accept a Visa credit card as payment from Broward County? ☐ Yes ☐ No

23. Living Wage solicitations only: In determining what, if any, fiscal impacts(s) are a result of the Ordinance for this solicitation, provide the following for information purposes only. Response is not considered in determining the award of this contract. ☐ Yes ☐ No
Living Wage had an effect on the pricing. ☐ N/A
If yes, Living Wage increased the pricing by ____% or decreased the pricing by ___%.

Questions 23 - 26 are only applicable to construction or service (repair, maintain or furnish and install) solicitations:

24. What is the last contract of this nature that your firm has completed, or what similar on-going contracts is your firm working on? If additional space is required, provide on separate sheet. _____
_____
_____
_____

25. Has your firm completely inspected the project site(s) prior to submitting response? ☐ Yes ☐ No

26. Will your firm need to rent or purchase any equipment for this contract? If yes, please specify details in an attached a written response. ☐ Yes ☐ No

27. What equipment does your firm own that is available for this contract? _____
_____

Name of Vendor: _____

LITIGATION HISTORY FORM

Failure to disclose any material case, or to provide all requested information in connection with each case, may result in the Vendor being deemed non-responsive. Prior to making such determination, the Vendor will have the ability to clarify the submittal and to explain why an undisclosed case is not material. Refer to the Invitation for Bid Special Instructions to Bidders, Litigation History - Section 24, for further instructions.

Vendor Name: _____

☐ There are no material cases for this Vendor; or

☐ Material Case(s) are disclosed below:

Is this for a: (check type) ☐ Parent, ☐ Subsidiary, or ☐ Predecessor Firm?	If Yes, Name of Parent/Subsidiary/Predecessor: or No ☐
Party	Vendor is Plaintiff ☐ Vendor is Defendant ☐
Case Number, Name, and Date Filed	
Name of Court or other tribunal	
Type of Case	Bankruptcy ☐ Civil ☐ Criminal ☐ Administrative/Regulatory ☐
Claim or Cause of Action and Brief description of each Count	
Brief description of the Subject Matter and Project Involved	
Disposition of Case (Attach copy of any applicable Judgment, Settlement Agreement and Satisfaction of Judgment.)	Pending ☐ Settled ☐ Dismissed ☐ Judgment Vendor's Favor ☐ Judgment Against Vendor ☐ If Judgment Against, is Judgment Satisfied? Yes ☐ No ☐
Opposing Counsel	Name: _____ Email:_____ Telephone Number:_____

ATTACHMENT "A" SPECIFICATIONS

A contract will be awarded to the Bidder whose proposal is deemed to be the most advantageous to Broward County, in accordance with criteria set forth in the Invitation for Bid, always taking into account the quality of the goods or services to be supplied, their conformance with specifications, delivery terms, price, administrative costs, past performance, and financial responsibility.

TECHNICAL SPECIFICATIONS – COMMUTER COACH – DIESEL
(Specifications include provisions for 45 foot Over the Road COACHES)

The Work under these Contract documents consists of the manufacture and delivery of a base order of five 45-foot diesel powered commuter coaches and associated spare parts, training materials and manuals. The contract includes an option to purchase up to an additional six 45-foot diesel powered commuter coaches and associated spare parts, training materials and manuals within 24 months of award date.

TS1 TECHNICAL SCOPE

Broward County seeks to purchase the most modern heavy-duty, Commuter Coaches (Coache(s)) available that will provide maximum passenger appeal in appearance, comfort, and safety. Heavy-duty commuter Coaches ordered under this bid will be Diesel powered, and will be approximately 45 feet in length. Coaches shall be the manufacturer's latest production model, conforming to the detailed requirements listed below. (NOTE: Dimensions used throughout this specification are U.S. standard units; i.e., inches, pounds, etc.).

These Technical Specifications ("Specifications") define requirements for heavy-duty composite floor, Coaches, which, by the selection of specifically identified alternative configurations, may be used for both suburban express service and general service on urban arterial streets. Each Coach shall be designed and constructed to ensure a minimum service life of at least 12 years or 500,000 miles in revenue service and is intended for the widest possible spectrum of passengers, including children, adults, the elderly and people with disabilities. It shall be capable of operating at least 40,000 miles per year, including the 12th year.

Experimental or prototype models or units are unacceptable for the Coaches listed in the proposal. Proposals must incorporate a unique exterior that is aesthetically pleasing with a sleek, modern look. Submitted proposals must include artist's renderings (in color) of what the exterior of the finished product will look like. Design must be submitted for consideration by Broward County prior to submittal of bid in accordance with the Request for Approved Equals process.

The Coach shall be an Over the Road coach with kneeling capabilities and meet all ADA accessibility requirements. It shall have seating, as further described, and floor configurations suitable for Broward County Transit Division (BCT) passenger use.

In all cases, materials must be new and furnished as specified. Where brand names or specific items are used in these specifications, consider the term "BCT approved equal" to follow. Wherever such names appear, approved equals will be accepted only with the prior written concurrence from the Broward County Transit Division.

Coaches are to be built, delivered, accepted and ready for service within 180 calendar days of issuance of purchase order. Failure will result in a $200 per day, per coach for failure of delivery and acceptance per schedule.

Unless otherwise agreed, all units and components procured under this Contract, whether provided by suppliers or manufactured by the Coach Manufacturer, shall be duplicates in design, manufacture, and installation to assure interchangeability among Coaches in this procurement. This interchangeability shall extend to the individual components as well as to their locations in the Coaches.

The Coach Manufacturer shall be responsible for all materials and workmanship in the construction of the Coach and all accessories used, whether the same are manufactured by the Coach Manufacturer or purchased from supplier. This provision excludes tires and any equipment leased or supplied by BCT, except insofar as such equipment is damaged by the failure of a part or component for which the Coach Manufacturer is responsible, or except insofar as the damage to such equipment is caused by the Coach Manufacturer during the manufacture of the Coaches.

In the design and manufacture of the Coach, the Coach Manufacturer shall make every effort to reduce the amount of potentially hazardous waste.

TS2 DEFINITIONS

Agency: Broward County Transit Division (BCT)

Authorized Signor: The person who is executing this contract on behalf of the offeror/Proposer and who is authorized to bind the offeror/Proposer.

Class 1, Physical Safety: A failure that could lead directly to passenger or operator injury and represents a severe crash situation.

Class 2, Road Call: A failure resulting in an in-route interruption of revenue service. Service is discontinued until the Coach is replaced or repaired at the point of failure.

Class 3, Coach Change: A failure that requires removal of the Coach from service during its assignments. The Coach is operated to a rendezvous point with a replacement Coach.

Class 4, Bad Order: A failure that does not require removal of the Coach from service during its assignment but does degrade Coach operation. The failure shall be reported by operator or inspector.

Alternative. An alternative specification condition to the default Coach configuration. BCT may define alternatives to the default configuration to satisfy local operating requirements. Alternatives for the default configuration will be clearly identified.

Ambient Temperature. The temperature of the surrounding air. For testing purposes, ambient temperature must be between 16 °C (50 °F) and 38 °C (100 °F).

Analog Signals. A continuously variable signal that is solely dependent upon magnitude to express information content. (Analog signals are used to represent the state of variable devices such as rheostats, potentiometers, temperature probes, etc.)

APTA. American Public Transportation Association

Audible Discrete Frequency. An audible discrete frequency is determined to exist if the sound power level in any 1/3-octave band exceeds the average of the sound power levels of the two adjacent 1/3-octave bands by 4 decibels (dB) or more.

Battery Compartment. Low-voltage energy storage, i.e. 12/24 VDC batteries.

Battery Management System (BMS). Monitors energy, as well as temperature, cell or module voltages, and total pack voltage. The BMS adjusts the control strategy algorithms to maintain the batteries at uniform state of charge and optimal temperatures.

BCT. Broward County Transit Division. The governmental, quasi-governmental agency issuing these Specifications.

Braking Resistor. Device that converts electrical energy into heat, typically used as a retarder to supplement or replace the regenerative braking.

Coach Down: A Coach that is unserviceable due to parts not in stock, generally used for warranty conditions, but may be used for other situations as required.

Burst Pressure. The highest pressure reached in a container during a burst test.

Capacity (liquid container). The water volume of a container in gallons (liters).

Cells. Individual components (i.e., battery or capacitor cells).

Code. A legal requirement.

Contract. The agreement binding upon BCT and Coach Manufacturer to which these Specifications apply.

Coach Manufacturer. The entity delivering vehicles compliant with these Specifications to BCT.

Curb Weight. Weight of vehicle, including maximum fuel, oil and coolant; and all equipment required for operation and required by this Specification, but without passengers or driver.

Days: Unless otherwise stated, “days” shall mean calendar days.

dBA. Decibels with reference to 0.0002 microbar as measured on the “A” scale. A unit for measuring the relative loudness of sound, equal to approximately the smallest degree of difference of loudness detectable by the human ear.

Defect: Patent and latent malfunction or failure in the manufacture or design of any component or subsystem that causes a Coach to cease operating or causes it to operate in a degraded mode.

DC to DC Converter. A module which converts a source of direct current (DC) from one voltage level to another. In an all-electric Coach this typically converts High Voltage from the drive train battery system to 28 VDC in lieu of a conventional engine driven alternator.

Default Configuration Coach. The Coach described if no alternatives are selected. Signing, colors, the destination sign, reading list and other information must be provided by BCT.

Defect: Patent or latent malfunction or failure in manufacture, installation or design of any component or subsystem.

Destroyed. Physically made permanently unusable.

Deviation: Variance from a requirement or specification that does not alter the basis of a contract or adversely affects its performance.

Discrete Signal. A signal that can take only pre-defined values, usually of a binary 0 or 1 nature where 0 is battery ground potential and 1 is a defined battery positive potential.

Driver's Eye Range. The 95th-percentile ellipse defined in SAE Recommended Practice J941, except that the height of the ellipse shall be determined from the seat at its reference height.

Engine. Internal combustion powerplant used in a conventional Coach as the main source of drive power. Not to be confused with 'motor' which refers to an electric device.

Energy Storage System (ESS). A component or system of components that stores energy and for which its supply of energy is rechargeable by an off-vehicle energy source.

Energy System Controller (ESC). The ESC regulates energy flow throughout the electric system components in order to provide motive performance and accessory loads, as applicable, while maintaining critical system parameters (e.g., voltages, currents, temperatures, etc.) within specified operating ranges. The system controller must be of commercial design for transit duty.

Fatigue Failure (Corrosion Fatigue): The mechanical degradation of a material under the joint action of corrosion and cyclic loading.

Fire Resistant. Materials that have a flame spread index less than 150 as measured in a radiant panel flame test per ASTM-E 162-90.

Fireproof. Materials that will not burn or melt at temperatures less than 2000 °F.

FMVSS. Federal Motor Vehicle Safety Standards

FMCSR. Federal Motor Carrier Safety Regulations

Free Floor Space. Floor area available to standees, excluding the area under seats, area occupied by feet of seated passengers, the vestibule area forward of the standee line, and any floor space indicated by manufacturer as non-standee areas such as, the floor space "swept" by passenger doors during operation. Floor area of 1.5 square feet shall be allocated for the feet of each seated passenger that protrudes into the standee area.

Fusible Material. A metal, alloy or other material capable of being melted by heat

GAWR (Gross Axle Weight Rated). The maximum total weight as determined by the axle manufacturer, at which the axle can be safely and reliably operated for its intended purpose.

Gross Load. 150 pounds for every designed passenger seating position, for the driver, and for each 1.5 square feet of free floor space.

GFD/GFI (Ground Fault Detector / Ground Fault Interrupt). A system capable of detecting and If necessary interrupting a measurable resistance below that required by SAE J1766 between Isolated High Voltage and Low Voltage systems.

GVW (Gross Vehicle Weight). Curb weight plus gross load.

GVWR (Gross Vehicle Weight Rated). The maximum total weight as determined by the vehicle manufacturer, at which the vehicle can be safely and reliably operated for its intended purpose. This value is determined by the component in the suspension system with the lesser carrying capacity rating such as tires or axles.

High Voltage (HV). Greater than 50 volts (AC and DC).

Hose. Flexible line.

Inverter. A module that converts DC to and from AC.

I/O. **Input/Output for electrical systems**

kVA, Kilovolt-Amps – A unit of power generally associated with electrical devices.

Labeled. Equipment or materials to which has been attached a label, symbol or other identifying mark of an organization, which is acceptable to the authority having jurisdiction and concerned with product evaluation, which maintains periodic inspection of production labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

Leakage. Release of contents through a Defect or crack. See Rupture.

Legal Requirements. All federal, state and local statutes, laws, ordinances, rules and regulations applicable to the vehicles to which these Technical Specifications apply.

Line. All tubes, flexible and hard, that carry fluids.

Low Voltage (LV). 50 volts or less (AC and DC).

Lower Explosive Limit. The lowest concentration of gas where, given an ignition source, combustion is possible.

Maximum Service Temperature. The maximum temperature to which a container/cylinder will be subjected in normal service.

Metallic Hose. A hose whose strength depends primarily on the strength of its metallic parts; it can have metallic liners or covers, or both.

Module. Assembly of individual components.

Motor (Electric). A device that converts electrical energy into mechanical energy.

Operating Pressure. The varying pressure developed in a container during service.

Physical Layer. The first layer of the seven-layer International Standards Organization (ISO) Open Systems Interconnect (OSI) reference model. This provides the mechanical, electrical, functional and procedural characteristics required to gain access to the transmission medium (e.g., cable) and is responsible for transporting binary information between computerized systems.

Pipe. Nonflexible line.

Power Density. Power divided by mass, volume or area.

Propulsion System. System that provides propulsion for the vehicle proportional to operator commands.

Real-Time Clock (RTC). Computer clock that keeps track of the current time.

Regenerative Braking. Deceleration of the Coach to act as a generator, which returns vehicle kinetic energy to the energy storage system.

Related Defect: Damage inflicted on any component or subsystem as a direct result of a defect.
Retarder. Device used to augment or replace some of the functions of primary friction based braking systems of the Coach.

Rupture. Sudden and unstable damage propagation in the structural components of the container resulting in a loss of contents. See Leakage.

Seated Load. 150 pounds for every designed passenger seating position and for the driver.

SLW (Seated Load Weight). Curb weight plus seated load.

Serial Data Signals. A current loop based representation of ASCII or alphanumeric data used for transferring information between devices by transmitting a sequence of individual bits in a prearranged order of significance. An example is the communication that takes place between two or more electronic components with the ability to process and store information.

Solid State Alternator. A module that converts high-voltage DC to low-voltage DC (typically 12/24 volt systems). Also referred to as a DC/DC converter.

Sources of Ignition. Devices or equipment that because of their modes of use or operation, are capable of providing sufficient thermal energy to ignite flammable compressed natural gas-air mixtures when introduced into such a mixture, or when such a mixture comes into contact with them.

Special Tools. Tools not normally stocked by BCT.

Specification. A particular or detailed statement, account, or listing of the various elements, materials, dimensions, etc. involved in the manufacturing and construction of a product.

Standard. A firm guideline from a consensus group.

Standards. Standards referenced in “Part 5: Technical Specifications” are the latest revisions unless otherwise stated.

Standee Line. A line marked across the Coach aisle to designate the forward area that passengers may not occupy when the Coach is moving.

State of Charge (SOC). Quantity of electric energy remaining in the battery relative to the maximum rated Amp hour (Ah) capacity of the battery expressed in percent. This is a dynamic measurement used for the energy storage system. A full SOC indicates that the energy storage system cannot accept further charging from the generator, the regenerative braking system or an external Charger.

Stress Loops. The “pig-tails” commonly used to absorb flexing in piping.

Structure. The structure shall be defined as the basic body, including floor deck material and installation, load bearing external panels, structural components, axle mounting provisions and suspension beams and attachment points.

Wheelchair. A mobility aid belonging to any class of three- or four-wheeled devices, usable indoors, designed for and used by individuals with mobility impairments, whether operated manually or powered. A “common wheelchair” is such a device that does not exceed 30 inches in width and 48 inches in length measured 2 inches above the ground, and does not weigh more than 600 pounds when occupied.

Work. Any and all labor, supervision, services, materials, machinery, equipment, tools, supplies, and facilities called for in the contract and necessary to the completion thereof.

TS 3 ABBREVIATIONS

The following is a list of abbreviations used in these specifications.

1. ABS: ANTILOCK BRAKING SYSTEM
2. ADA: AMERICANS WITH DISABILITIES ACT
3. ANSI: AMERICAN NATIONAL STANDARDS INSTITUTE
4. APTA: AMERICAN PUBLIC TRANSIT ASSOCIATION
5. ASHRAE: AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING
6. ASTM: AMERICAN SOCIETY OF TESTING AND MATERIALS
7. BCT: BROWARD COUNTY TRANSIT
8. BMCS: BUREAU OF MOTOR CARRIER SAFETY
9. FMCSR: FEDERAL MOTOR CARRIER SAFETY REGULATIONS
10. FMVSS: FEDERAL MOTOR VEHICLE SAFETY STANDARDS
11. FTA: FEDERAL TRANSIT ADMINISTRATION
12. JIC: JOINT INDUSTRIAL COUNCIL
13. SAE: SOCIETY OF AUTOMOTIVE ENGINEERS
14. SPI: SOCIETY OF THE PLASTICS INDUSTRY
15. USDHEW: UNITED STATES DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

TS 4 LEGAL REQUIREMENTS

The Coach Manufacturer shall comply with all applicable federal, state and local regulations. These shall include but not be limited to ADA, Buy America, as well as state and local accessibility, safety and security requirements. Local regulations are defined as those below the state level. Sufficient documentation must be provided to allow for a thorough Pre-Award and Post-Award Audit for Buy America.

Coaches shall meet all applicable FMVSS and shall accommodate all applicable FMCSR regulations in effect at Broward County at the date of manufacture.

The Coach shall have successfully completed Altoona Testing prior to the date of bid submission. The Altoona Test Report may be provided with the bid submission but, must be provided within three business days of request.

In the event of any conflict between the requirements of these specifications and any applicable legal requirement, then the legal requirement shall prevail. Areas of these specifications left silent must conform to the most current APTA Standard Coach Procurement Guidelines for heavy duty, Over the Road Coaches.

TS 5 OVERALL REQUIREMENTS

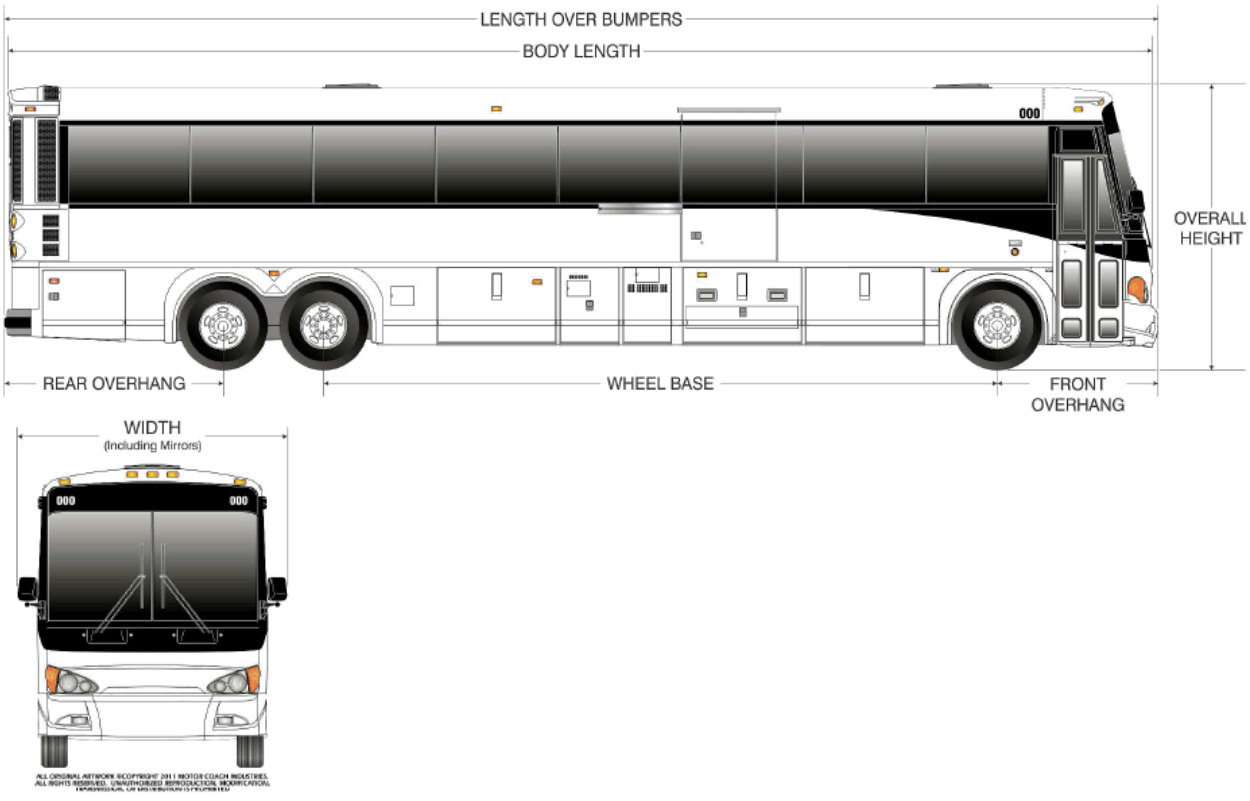
The Coach Manufacturer shall ensure that the application and installation of major Coach sub-components and systems are compliant with all such subcomponent vendors' requirements and recommendations. Coach Manufacturer and BCT shall identify subcomponent vendors that shall submit installation/application approval documents with the completion of the first production coach. Components used in the vehicle shall be of heavy-duty design and proven in transit service where applicable.

Prior to acceptance of first Coach, the structure of the Coach shall have undergone appropriate structural testing and/or analysis, including FTA required Altoona testing, to ensure adequacy of design for the urban transit service. Any items that required repeated repairs or replacement must undergo the corrective action with supporting test and analysis. A report clearly describing and explaining the failures and corrective actions taken to ensure any and all such failures will not reoccur shall be submitted to the Broward County Transit Division **within three business days of request**.

TS 5.1 DIMENSIONS

For reference only.

TS 5.1.1 PHYSICAL SIZE



With the exceptions of exterior mirrors, marker and signal lights, bumpers, flexible portions of the bumper, fender skirts, and rubrail, the coach shall have the following overall dimensions.

(1) Length: 45 feet – approximately
(2) Width: 8 feet, 6 inches (+0, -1 inch)
(3) Height: 141.25 inches - maximum (loaded or unloaded)
(4) First Step Height: 16.0 inch - maximum
(5) Ground clearance shall be no less than nine inches except within the axle zone and wheel area.
(6) Axle zone clearance, which is the projected area between tires and wheels on the same axial centerline, shall be no less than 5.4 inches

(7) Wheel area clearance shall be no less than eight inches for parts fixed to the bus body and six inches for parts that move vertically with the axles.

TS 5.2 WEIGHT AND AXLE LOADING

Gross Vehicle Weight Rating (GVWR) for Coaches supplied shall be sufficient to accommodate fully loaded Coach (fuel, oil and coolant as well as all equipment specified herein) plus full passenger (seated and standing) load for safe and normal in-service transit operation and shall comply with all Federal, State and Local Law. GVWR shall not exceed 54,000 pounds for a 45-foot bus.

It shall be a design goal to construct each bus as light in weight as possible without degradation of safety, appearance, comfort, traction or performance.

Coaches at a capacity load shall not exceed the tire factor limits, brake test criteria or structural design criteria.

Each completed coach shall be weighed and shall comply with Florida State Regulations. Design goal, coach weight, when loaded to 150 percent of capacity shall not exceed Florida State axle weight limit per single axle.

Each Coach shall be constructed as light in weight as possible without degradation of safety, appearance, comfort, traction or performance. In no case shall the axle weight exceed 22,400 pounds.

Each Coach shall be delivered with a certified weight slip to show the total Coach empty weight and the curb weight on each axle. Coach empty weight will include all fluids required for service.

TS 5.3 CAPACITY

The vehicle shall be designed to carry the gross vehicle weight, which shall not exceed the Coach GVWR. Provisions to secure two wheelchair passengers shall also be provided. The overall seating capacity may be reduced when the securement positions are being utilized. Passenger capacity, seats and standees must be maximized without wheelchair locations being occupied. There shall be a minimum of 57 seats for a 45-foot coach.

TS 5.4 SERVICE LIFE AND MAINTENANCE

TS 5.4.1 SERVICE LIFE
The minimum useful design life of the Coach in commuter service shall be at least 12 years or 500,000 miles. It shall be capable of operating at least 40,000 miles per year, including the 12th year.

TS 5.4.2 MAINTENANCE AND INSPECTION

Scheduled maintenance tasks shall be related and shall be in accordance with the manufacturer's recommended preventative maintenance schedule (along with routine daily service performed during the fueling operations).

Test ports, as required, shall be provided for accessing commonly checked functions on the Coach, such as hydraulic, pneumatic and cooling systems.

The coach manufacturer shall give prime consideration to the routine problems of maintaining the vehicle. All coach components and systems, both mechanical and electrical, which will require periodic physical work or inspection processes, shall be installed so that a minimum of time is consumed in gaining access to the critical repair areas. It shall not be necessary to disassemble portions of the coach structure and/or equipment such as seats and flooring under seats in order to gain access to these areas. Each coach shall be designed to facilitate the disassembly, reassembly, servicing or maintenance, using tools and equipment that are normally available as standard commercial items.

Requirements for the use of unique specialized tools will be minimized. The body and structure of the coach shall be designed for ease of maintenance and repair. Individual panels or other equipment which may be damaged in normal service shall be repairable or replaceable. Ease of repair shall be related to the vulnerability of the item to damage in service.

Coach Manufacturer shall provide a list of all special tools and pricing required for maintaining this equipment. Specialized tools are defined as only those tools that are specific to the coach being proposed and not generic to other coaches in the industry. Said list shall be submitted as a supplement to the pricing schedule included with the Contract.

NOTE: Tools such as compartment door keys, bellows gauges, towing adapters and other tools that are required for daily maintenance and inspections shall not be included in the special tool list and shall be furnished for each coach.

Scheduled maintenance or inspection tasks, as specified by the Coach Manufacturer, shall require a skill level of a 3M or less. Scheduled maintenance tasks shall be related and shall be grouped in maximum mileage intervals. Routine scheduled maintenance actions, such as filter replacement and adjustments, shall not be required at intervals of less than 6,000 miles, except for routine daily service performed during the fueling operations. Higher levels of scheduled maintenance tasks shall occur at even multiples of mileage.

The manufacturer shall provide a preventive maintenance schedule covering all components upon delivery of the first production vehicle. Each schedule shall be complete and shall adhere to frequency intervals considered normal industry standards.

TS 5.4.3 MEAN MILEAGE BETWEEN FAILURES

The following are design goals for mean mileage between failures by failure class, provided that all specified preventive maintenance procedures are followed.

(1) Class 1: Physical Safety - Mean mileage shall be greater than 1,000,000 miles.
(2) Class 2: Road Call - Mean mileage shall be greater than 20,000 miles.
(3) Class 3: Coach Change - Mean mileage shall be greater than 16,000 miles.
(4) Class 4: Bad Order - Mean mileage shall be greater than 10,000 miles.

TS 5.4.4 ACCESSIBILITY

All systems or components serviced as part of periodic maintenance or whose failure may result in Class 1 or Class 2 failures shall be readily accessible for service and inspection. Removal or physical movement of components unrelated to the specific maintenance and/or repair tasks involved shall be minimized. Relative accessibility of components, measured in time required to gain access, shall be inversely proportional to frequency of maintenance and repair of the components.

TS 5.4.5 INTERCHANGEABILITY

Components with identical functions shall be interchangeable to the extent possible. Components with non-identical functions shall not be, or appear to be interchangeable.

Unless otherwise agreed, all units and components procured under the Contract, whether provided by suppliers or manufactured by the Coach Manufacturer, shall be duplicates in design, manufacture and installation to ensure interchangeability among Coaches in each order group in this procurement. This interchangeability shall extend to the individual components as well as to their locations in the Coaches. The Coach shall be designed, using commercially available (off-the-shelf) components and materials that meet Buy America requirements (Refer to the Transit Division Supplement). All component parts must have been in transit service for a minimum of one year, without major failure, unless approved by BCT.

Any one component or unit used in the construction of these Coaches shall be an exact duplicate in design, manufacture and assembly for each Coach in each order group in this Contract. Coach Manufacturer shall identify and secure approval for any changes in components or unit construction provided within a Contract.

Components with identical functions shall be interchangeable to the extent practicable. These components shall include passenger windows, hardware, interior trim, lamps, lamp lenses, evaporator and condenser motors and seat assemblies. Components with non-identical functions shall not be nor shall they appear to be, interchangeable. All Coaches purchased under this contract shall be uniformly manufactured with identical components and setup from one Coach to another within each Group.

In the event that the Coach Manufacturer is unable to comply with the interchangeability requirement, the Coach Manufacturer must notify BCT and obtain BCT's prior written approval, including any changing in pricing. BCT shall review proposed product changes on a case-by-case basis and shall have the right to require extended warranties to ensure that product changes perform at least as well as the originally supplied products.

TS 5.5 Operating Environment

The Coach shall achieve normal operation in ambient temperature ranges of 10ºF to 115ºF, at relative humidity between 5 percent and 100 percent, and at altitudes up to 3000 feet above sea level. Degradation of performance due to atmospheric conditions shall be minimized at temperatures below 10˚F, above 115˚F or at altitudes above 6000 feet. Special equipment or procedures may be employed to start the coach after a 12 hour or more exposure to temperatures below +30˚F without the engine in operation. Speed, gradability, and acceleration performance requirements shall be met at, or corrected to, 85ºF, 29 inches Hg, dry air. Performance degradation at conditions other than the test standard shall not exceed 1 percent for each 3ºF and four percent for 1,000 feet of altitude above the standard.

Broward County experiences severe rain conditions and as such, special attention must be given to ensure that electrical components are protected and no water leaks occur in the Coach.

TS 5.6 Material Selection

For economy in maintenance, it is essential that parts and units be arranged so that rapid assembly and disassembly will be possible for the coach being provided. The dimensions of all parts, unless particularly specified, will be in accordance with current standards of the Society of Automotive Engineers, or the metric equivalents. All units or parts not specified shall be Manufacturer's standard units or parts and shall conform in material, design and workmanship to industry standards and shall meet or exceed all Federal and State motor vehicle safety standards. During the manufacturing of the coaches all parts shall be new and in no case will used, reconditioned or obsolete parts be accepted. No advantages shall be taken by the Manufacturer in the omission of any parts or details that make the coach complete and ready for service, even though such parts or details are not mentioned in these specifications.

Workmanship throughout shall conform to the high standard of commercially accepted practice for the class of work and shall result in a neat and finished appearance. All exposed surfaces and edges shall be smooth, free from burrs and other projections, and shall be neatly finished. Exposed metal surfaces, prior to paneling or covering shall be properly prepared and coated with protective material to insure against corrosion or deterioration.

All lubrication points, unless otherwise specified, shall be capable of accepting a high-pressure grease gun operated on fittings that permit grease to travel into the lubrication point but does not permit the grease to escape and designed so that when the grease gun is withdrawn, there is a positive barrier preventing dirt from entering the fitting. These fittings shall be of one manufacture and shall be accessible for a grease gun while the vehicle is being serviced on either a lift or a pit.

TS 5.7 NEW COMPONENTS

All new components and product innovations not manufactured by the Contractor and required or selected by BCT shall have a representative from the component manufacturer at the bus manufacturing plant to ensure proper installation of the unit, to the bus, to the satisfaction of BCT'S inspectors and the component manufacturer.

Certifications shall be provided to BCT and the Contractor, prior to presentation of the first bus, that are approved by the component/sub-component representative that clearly indicate that the representative approves of the installation and application of the component/sub component. At a minimum, certifications shall be provided on the following components:

1. Engine assembly and all related components, including:
2. Engine cradle and chassis mounting
3. Cooling system - electric fans and radiator
4. Air induction system, including charge air cooler
5. Wiring harness and development
6. Hydraulic pumps and hose routing
7. Engine fuel system
8. Fuel line routing
9. Fuel Pressure regulating devices
10. PRO relief line routing
11. Fueling system
12. Transmission assembly and all related components
13. Drive, tag and front axles
14. HVAC system
15. Wheelchair lift assembly
16. Entrance door
17. Multiplexing system and components

18. Auxiliary heating system
19. Destination sign system
20. Fire suppression system
21. Wheelchair restraint system
22. ABS brake system and components
23. Operator's seat
24. Exterior mirrors and controls
25. Engine starting system
26. Floor covering material
27. Charging system
28. Passenger Seating

TS 6 BODY

TS 6.1 DESIGN

The coach shall have a clean, smooth, simple design, primarily derived from coach performance requirements and passenger service criteria. The vehicle structure shall be semi-monocoque, stainless steel frame with stainless steel upper body framing and high stress areas.

The coach shall be painted down to the street surface except for the paneling below the belt rail and rear of the A-pillars. This area will utilize 304 series fluted and flat stainless steel satin blend panels. The exterior and body features, including grilles and louvers, shall be shaped to allow complete and easy cleaning by automatic bus washers without snagging washer brushes. The retention of water and dirt in or on any body feature or the freezing or bleeding out of this dirt and water after leaving the washer shall be minimized. Body and windows shall be sealed to prevent leaking of air, dust, or water under normal operating conditions and during cleaning in automatic bus washers for the service life of the coach. Accumulation of spray and splash on any window of the coach generated by its wheels on a wet road shall be minimized. Corners, especially at windows, shall be rounded. The undercarriage of the coach shall be sealed off to the maximum extent practicable to significantly reduce the intrusion of road spray.

The vehicle stainless steel structure shall be designed to operate with minimal maintenance throughout the 12-year design operating profile. The design operating profile specified by BCT shall be considered for this purpose.

The stainless steel structure shall be designed for maximum strength, reliability, durability with significant weight reduction as compared to standard steel construction Coaches. The structure of the Coach shall be designed to withstand the transit service conditions typical of an urban duty cycle throughout its service life.

Coaches will operate under conditions encountered in transit service in the South Florida service area throughout the expected 12 year service life of the coach.

The coach design shall incorporate all severe service, heavy-duty features which shall enable the basic structure to withstand fatigue damage that is sufficient to cause Class 5 major failure. The structure shall withstand sustained impact and inertial loads up to 16,000 psi (7264kg pscm) throughout the expected 12 year service life of the coach without permanent deformation, damage or failure of the structure. The stainless structure is considered to be frame, support braces, spines, and bulkheads.

The stainless steel structure must carry a minimum 12 year warranty for parts and labor. All welding shall conform to the American Welding Structural (AWS) Welding Code, Steel, D1.1-84 or D8.8-79 or approved equal standard applicable to the steel used. Where visible, welding shall have finished appearance. The Coach Manufacturer shall supply design prints of all critical weld areas to BCT for

production inspection purpose 30 days prior to fabrication or at preproduction meeting. All welding on the vehicle shall be done by personnel certified to AWS D1.1 or approved equal standard applicable to the steel used. The Coach Manufacturer shall supply evidence of certification of its personnel assigned to welding after contract award.

All material shall be North American standard. The phrase North American Standard is a nonspecific term that BCT intends to mean materials regularly and widely used, available, supplied, and widely recognized as acceptable and used by the transit industry in North America, more specifically, in the United States of America. Furthermore, this is intended to apply to design features, method and quality of construction, and suitability of purpose, and actual qualitative aspects of materials. The vehicle shall be designed and constructed in a manner where the structure around the windshield closure and behind the front cap will withstand all required bumper impact tests without permanent deformation to the front end structure and door frame “A” post. Front end frame components such as the entrance door “A” post, that are bolted in place shall be replaceable in less than four hours and shall not require removal or cutting of the front cap to aid in the replacement.

All cap screws, nuts and bolts shall be of SAE Grade 5 material unless the application requires a higher grade material. Exceptions to the nuts and bolts requirement are fasteners specifically designed for the application and provided as a package by the original component manufacturers, or specialty fasteners used for design-specific purposes. Related hardware such as washers shall be manufactured to appropriate specifications. All exposed nuts, bolts, washers and linkage shall be zinc, cadmium plated or phosphate coated to prevent corrosion and male threads shall be coated with a corrosion inhibiting grease such as Sachem No-Ox-Id AA Special@, unless Loctite or similar chemical system is necessary on a particular device. All threaded fasteners shall protrude a minimum of two full threads through their mating nuts. Rivet type nuts are not allowed due to their propensity to spin in their mount member preventing the removal of the threaded fastener.

All copper tubing shall be industry standard. The same fittings must be used in the same location throughout the order of Coaches. Long tubing nuts shall be applied where space conditions permit.

All piping, tubing, cables, and wiring shall be properly bracketed. All mounting of assemblies and sub-assemblies including the power plant and accessories shall be mechanically isolated to minimize the transmission of vibration of the body structure.

All pipe fitting shall be heavy duty type and shall be designed to withstand the maximum pressure that could be generated under normal or overload conditions within the air or fluid system of which they are component.

All burrs and sharp edges shall be dressed so as to prevent injury to passengers, operators and maintenance personnel. All clevises shall be removable and not welded to the rods. Drain and filler plugs on rear axle, transmission drain and engine drain plugs shall be of the magnetic type, have hexagon heads, and be of high strength material.

All aluminum surfaces not otherwise protected by paint, etc. shall be clear anodized.

All flexible hoses used for oil in the engine compartment shall be Teflon with braided stainless steel jacket and standard SAE brass or steel fittings, unless otherwise specified herein.

All insulation, plastics, and synthetic materials shall be fire retardant and self-extinguished.

All surfaces to which springs are attached shall be of such a design as to prevent excessive grooving or wear of the parts.

All grease and oil fittings shall be readily accessible for lubrication.

All sheet metal screws shall comply with ASTM and ASA recommendations relative to quality and installation.

Bosses on units of light construction, with threaded sections in which fittings or pipes are connected shall have hexagon or square shoulders which can be held with a wrench so as to eliminate damage to the unit.

All air, oil and water lines and openings into equipment units shall be sealed, plugged or adequately protected against entrance of contaminants until connected.

The engine oil, transmission oil, and power steering oil filler position shall be equipped with permanent identification tags.

Mounting of major assemblies including engine, transmission, axles, power steering and suspension components shall be such that dismounting shall be easily carried out by conventional shop methods.

Tee fittings shall be installed in all air lines regulated by an air pressure regulator for the purpose of testing for proper pressure.

All components, assemblies, and sub-assemblies shall be readily accessible for service, repair, removal and replacement.

TS 6.2 MATERIAL

Body materials shall be selected and the body fabricated to reduce maintenance, extend durability, and provide consistency of appearance throughout the life of the coach. Detailing shall be kept simple; add on devices and trim shall be minimized and, where necessary, integrated into the basic design.

TS 6.3 FINISH AND COLOR

All exterior surfaces shall be smooth and free of wrinkles and dents. Exterior surfaces to be painted shall be properly cleaned and primed as appropriate for the paint used, prior to application of paint to assure a proper bond between the basic surface and successive coats of original paint for the service life of the coach. Paint utilized shall be DuPont Imron 5000 (Silver 832401EG), 3.5 VOC two part polyurethane enamel that exhibits excellent color and gloss retention, chip, abrasion, stain and mar resistance, chemical and solvent resistance and excellent cleanability per industrial standards. Paint shall be applied smoothly and evenly with the finished surface free of dirt, runs, orange peel, and other imperfections. All exterior finished surfaces shall be impervious to diesel fuel, gasoline, and commercial cleaning agents. Finished surfaces shall not be damaged by controlled applications of commonly used graffiti-removing chemicals. The bidder that is awarded the contract will be given the final design requirements.

TS 6.4 DECALS

Except where BCT instructs otherwise in advance, BCT exterior logos/striping shall be provided and installed on each bus by the Contractor.

TS 6.4.1 NUMBERING AND SIGNING

Monograms, numbers and other signing shall be applied to the inside and outside of the coach as required. Signs shall be durable and fade, chip, and peel-resistant; they may be decals, or pressure sensitive appliques.

Interior decals such as but not limited to the following, No Smoking, Exit door, Emergency Exit, Watch Your Step, Wheelchair instructions and "Reserved for Wheelchairs," etc. shall be provided . All decals shall be in English and Spanish. Signs shall be durable and fade-, chip- and peel-resistant. They may be decals or pressure-sensitive appliqués. All decals shall be installed per the decal supplier recommendations. Signs shall be provided in compliance with the ADA requirements defined in 49 CFR Part, Subpart b, 38.27.

Signs shall be professionally done, durable and fade-, chip-, and peel-resistant; they shall be made of 3m 680 series reflective films with an expected life of seven years for exterior applications. All exterior decals shall be designed and installed in a manner that the decals cross over the passenger windows and the seated passenger shall be able to see through the decal. Decals shall be reflective in all areas including where they pass over the passenger windows. At least one sign shall be provided on each side of the Coach interior to show that seats at the front are priority seats for elderly and disabled passengers.
Numbers on vertical surfaces shall be reflective.

Coaches shall have fleet numbers applied both on the interior and exterior of the Coach. In addition, a four-digit roof Coach number visible from 500 feet shall be furnished. The roof will have the Coach number displayed, stacked form, to be visible from the air.

A sign, with letters at least two inches high stating that it is a violation of the federal and state regulations for a Coach to be operated with persons occupying the area forward of the standee line, shall be installed in the front of the Coach. Each wheelchair securement location shall have a sign designating it as such. Characters on signs shall meet ADA requirements. The international symbol of accessibility shall be displayed per ADA recommendations. Interior signage intended for passenger use shall bilingual English/Spanish. A specific plan for all numbering and signing shall be subject to BCT approval after contract award.

General: All numbers, logos and appliqués will be manufactured and processed using 3M 680CR series reflective material.

The large blue swoosh will be manufactured using 3M 680CR-75 material with premask.

Window film for the large swoosh will be AG/SEE THROUGH reflective (pattern pending) on one-piece carrier with premask.

Light blue reflective material will match C40/M5 and will be an electro-statically printed Scotchprint on 3M 680CR-10 material. Printing will be protected from UV and abrasion by using the 3M laminate 8519. This color is available from the Broward County Transit Division.

Color samples will be provided to Broward County Transit Division for approval. No Production may take place until written approval is received from Broward County Transit Division.

BCT logo will be screen-printed or scotchprint using 3M 680-10 material white vinyl and pre-mask. If screen printed, series 9800 UV inks must be used. The logo will be computer cut on a one-piece liner. Logo to have clear coat protection 3 with warranty on ink and removability for no less than five years.

Front, rear, and side numbers will be 4.00 inch pre-spaced on 3M 680CR-75 reflective material.

Roof numbers will be 24.00 inches in height manufactured on 3M 180C-37. All numbers will be Helvetica bold.

Breeze Logo (to be shipped separately) is computer cut from 3M 680CR-71 (yellow) and 3M 680CR-75 (blue). Logos will contain alignment targets for easy installation. These are pigmented reflective colors and are warranted against color fade, peeling, chipping or cracking for a period of five years. Breeze logo will be shipped separate from the Coach.

Electric Terminal Compartment - indicate correct voltages for all terminals.
Rear of front door - "Kneeling Bus"
The location of the battery disconnect switch shall be identified on the bus exterior.
A standee capacity decal shall be located near the front door and shall be applicable to the type of coach.
Yellow and black warning strip above WCL door.
GVWR: XX,XXX Ibs. - shall be applied in three inch letters on both sides of the buses.

Additional INTERIOR decals include:

Emergency exit instructions as necessary.

The wheelchair tie-down positions are also each equipped with a sign saying, "Push here to request stop".

"No Standing Forward of The White Line" and "Remain Seated and Do Not Talk To The Driver".

"Fire Extinguisher."

"Upon request of the operator or other authorized person, please vacate these seats to make room for senior citizens, people with disabilities or pregnant passengers" to be provided in compliance with ADA requirements.

Install a pressure sensitive "no" decal or approved equal with the following heading and three statements - "Please - No Smoking - No eating or drinking – radios silent." Do not include any foreign language. The decal is 13 ½ inches long, 6 inches wide, white background with the appropriate 3 ½ inch diameter red, black and white visual symbol under each statement.

Both the "Watch Your Step" and "Welcome Aboard" signs shall be incorporated in the same nameplate permanently mounted to the second step riser.

"No Solicitation" decal. Additional decals and signs shall be applied as necessary to comply with all Federal and State laws governing same.

Under no circumstances can changes to this graphics specification be made without written approval from Broward County Transit Division.

A metal builder's plate shall be installed on the inside of the front of the Coach, listing the manufacturer's name, Coach and chassis model, serial number and date of manufacture. The plate shall be installed with permanent fasteners.

TS 6.5 PEDESTRIAN SAFETY

Exterior protrusions along the side and front of the Coach greater than ½ inches and within 80 inches of the ground shall have a radius no less than the amount of the protrusion. The exterior rearview mirrors, cameras and required lights and reflectors are exempt from the protrusion requirement. Grilles, doors,

bumpers and other features on the sides and rear of the Coach shall be designed to minimize toeholds or handholds.

Exterior protrusions shall not cause a line-of-sight blockage for the driver.

TS 6.6 STRUCTURE

TS 6.6.1 STRENGTH AND FATIGUE LIFE

The structure shall be of a sufficiently strong and efficient design to withstand the conditions of transit service throughout the service life of the coach. The design shall incorporate all severe service, heavy duty features available from the contractor.

Any manufacturer whose bus is or has been involved in a structurally related fleet failure (number of failures exceeding ten percent of the fleet) in any transit property in the U.S. in the last six years or who has been directed by the National Highway Transportation Safety Administration to make repairs of any bus must have completed a detailed investigation of the failure, a detailed structural analysis of the complete bus structure to rule out related defects on any part of the structure, and shall supply a complete copy of the corrective actions to be undertaken. All failures involving basic body, structure, axles, and suspension are considered structural related failures for the purposes of this specification.

The investigation of a failure and structural analysis must be carried out by a reputed independent Transit Industry Consultant and shall not be limited to finite element analysis or appropriate test but shall be confirmed by an actual track test evaluation with suitable time concentration to demonstrate the ability of the modified structure to perform for the specified 500,000.

The above-mentioned report, if applicable, shall be submitted to BCT as part of the bid package.

TS 6.6.2 DISTORTION

The coach at GVWR and under static conditions, shall not exhibit deformation or deflection that impairs operation of doors, windows, or other mechanical elements. Static conditions include the vehicle at rest with any one wheel or dual set of wheels on a 6-inch curb or in a 6-inch deep hole.

TS 6.6.3 RESONANCE

All structure, body, and panel-bending mode frequencies, including vertical, lateral, and torsional modes, shall be sufficiently removed from all primary excitation frequencies to minimize audible, visible, or sensible resonant vibrations during normal service.

TS 6.6.4 MATERIAL

Reinforced fiberglass and plastic materials shall be excluded from structural body construction. All materials used in the construction of the passenger compartment of the bus shall be in accordance with the Recommended Fire Safety Practices defined in FMVSS 302.

TS 6.6.5 CORROSION

The coach shall resist corrosion from atmospheric conditions and road salts. It shall maintain structural integrity and nearly maintain original appearance throughout its service life, provided it is maintained in accordance with the procedures specified in the service manual. All exposed body panels above and below the floor line shall be aluminum or stainless steel except for the front end upper and lower panels, the rear end upper panels and the upper sidewall galvanized panel which may be made of

fiberglass. Materials exposed to the elements and all joints and connections of dissimilar metals shall be corrosion-resistant and shall be protected from galvanic corrosion. Bidders proposing steel tubing for frame construction are required to use stainless steel tubing of comparable cross section.

Proposals shall contain the manufacturer's complete corrosion protection plan including a specific identification and illustration of structural and exterior material and their relative corrosion resistance.

All frame members below the passenger floor that are subject to road splash and are less than .10 inch shall be stainless steel for maximum corrosion protection. All other frame members exposed to splash are to be stainless steel and are to be .10 inch thick minimum and shall be coated with Tectyl 127CG on all surfaces exposed to road splash for maximum corrosion protection. The interior of all hollow tubes shall be treated with an appropriate rust inhibitor.

Floor supports in the passenger and drivers area, the sidewall structures and roof structures that are not exposed to road spray shall be stainless steel and primed prior to incorporation into the coach assembly.

Floor supports in the passenger and drivers area shall be stainless steel, the sidewall structures and roof structures that are not exposed to road spray shall be extruded aluminum.

The floor supports and sidewall components shall be painted with a suitable finish coat.

Outer sidewall panels above the passenger floor and below the windows shall be stainless steel. The roof panels shall be pre-primed aluminum both sides and the front and rear roof caps fiberglass.

Stainless steel panels and door frames shall be used on the rear lower and side engine service doors. The upper rear engine door and louvers may be made of fiberglass.

Stainless steel panels and aluminum door frames shall be used on all other service doors, baggage compartment doors.

The wheelchair lift door may be made of an aluminum frame or other acceptable lightweight material and aluminum exterior panel. Non-structural underbody panels used for baggage bay floors and to retain insulation in other areas, shall be Tectyl coated aluminum or stainless steel for maximum corrosion protection. In the wheelwell areas, non-structural closeout panels shall be stainless steel.

Before assembling, all metal body parts must be given a thorough anti-corrosion treatment. Joints between dissimilar metals shall be properly insulated with an inert plastic tape to avoid corrosion due to electrolytic action. All nuts, bolts, clips, washers, clamps, and like parts shall be zinc or cadmium plated, phosphate coated, black oxide coated, stainless steel, or nylon to prevent corrosion. All exterior joints and seams must be sealed.

The Coach shall resist corrosion from subtropical conditions as experienced in South Florida. It shall maintain structural integrity and nearly maintain original appearance throughout its service life, provided it is maintained by BCT according to the procedures specified in the service manual. Materials exposed to the elements and all joints and connections of dissimilar metals shall be corrosion resistant and shall be protected from galvanic corrosion. Representative samples of all dissimilar metal connections shall withstand a 2-week salt spray test according to ASTM Procedure B-117 with no visual or structural detrimental effects to normally visible surfaces, and no significant structural degradation or weight loss of more than one percent for other members or components. Corrosion salt spray test certification shall be submitted to BCT before contract award.

All steel and corrodible surfaces shall be cleaned, primed and coated with two or more coats of primer and two or more coats of paint for corrosion protection. Primer shall not be the sole finish on any

surface. All aluminum surfaces shall be zinc-chromate coated. All areas under and around the Coach, including but not limited to the chassis, under floor and side panels, shall be protected with undercoat or approved equal. Exterior hardware and floor screws shall be stainless steel. Inside and outside structural tubing surfaces shall be shall be corrosion resistant through application of a corrosion protection system. All tubular structures, and body areas susceptible to entrance of water, shall have adequate ventilation and drainage holes at appropriate high and low locations. If structural considerations preclude ventilation holes in any tubular structure, the structure shall be filled with closed cell non-hygroscopic foam.

All body side molding shall have drains to preclude the retention of water between the metal surface and the molding. Window frame areas shall be properly coated and sealed to prevent entry of water. To the maximum extent possible, all normally serviced components, fluid lines, wire harnesses, and service points shall be installed after the anticorrosion measures are completed. Said items that must be constructed or installed before the anticorrosion process shall be protected from the process and masking materials shall be removed after the process. The warranty MUST be a 12-year minimum warranty including parts and labor.

Dissimilar metals must be separated by a non-conductive barrier.

Barriers may consist of one of the following:

a) a black elastic compound tape
b) a Mylar tape
c) a double sided structural adhesive tape

Where tape barriers are not feasible an appropriate sealant shall be used to provide a protective barrier and a water tight seal. This sealer must be used on all panels and assemblies that are susceptible to water leaks.

TS 6.6.6 TOWING

Towing devices shall be provided and be permanently mounted on the front and rear of the coach. The coach may be towed from the front only, however must be able to recover from the rear. Recovery shall mean to move the bus into the clear so it can be hooked up and towed from the front. Lift and tow is not required.

Front towing device shall withstand, without permanent deformation, tension loads up to 1.2 times the curb weight of the coach within the 20˚ of the longitudinal axis of the coach. Towing device shall accommodate a crane hook with a one-inch throat. A minimum of two steel rear skid plates measuring approximately 15.2 x 3.3 shall be welded to the underside of the engine rails. Skid design shall be durable construction to adequately protect mechanical or other body components from damage due to the coach bottoming out. The coach shall be manufactured without ferry skids and shall provide an approach angle of 9.5 degrees.

Provisions to supply compressed air from the tow truck to the coach for operation of the coach service brakes from the tow truck and to supply the coach air system shall be installed at the front of the coach near the tow eyes. Gladhands color coded BLUE for service brakes and RED for system supply shall be installed to accommodate the connection of service brake and supply lines from the tow truck. Additionally, an electrical receptacle connected to the coach exterior lighting system, excluding the headlight circuit, for towing purposes shall also be provided. This receptacle shall be installed in close proximity to the air supply glad hands. The air and electrical connectors shall be concealed from view when the coach is in normal operation. The method of attaching the tow bar shall be provided to BCT with the RFAE's and shall require the specific approval of BCT.

TS 6.6.7 JACKING AND HOISTING

It shall be possible to safely jack up the bus, at curb weight, with an 8.5-inch high hydraulic hand jack or a 10-ton floor jack when a tire or dual set is completely flat and the bus is on a level, hard surface. Jacking from a single point shall permit raising the bus sufficiently high enough to remove and reinstall any wheel and tire assembly. The bus shall be fitted with jacking pads for each tire/wheel locations and shall permit easy and safe jacking with the flat tire or dual set on a 3.5-inch high run-up block not wider than a single tire. The bus will withstand such jacking at any one or any combination of wheel locations without permanent deformation or damage.

The bus axles or jacking plates shall accommodate the lifting pads of a post hoisting system. Jacking plates shall be approximately two inches square, with a turned-down flange not less than 0.5 inch deep on each side to prevent the bus from falling off the hoist. Other pads shall be provided to support the bus on jack stands independent of the hoist.

The vehicle shall be capable of lifting by the wheels, and, as necessary to meet tire load requirements, the proper number for wheel lifts and/or adapters must be used.

TS 6.6.8 FIRE PROTECTION

The bus shall be designed and manufactured in accordance with all applicable fire safety and smoke emission regulations. These provisions shall include the use of fire-retardant/low-smoke materials, fire detection systems, bulkheads and facilitation of passenger evacuation.

All materials used in the construction of the passenger compartment of the bus shall be in accordance with the Recommended Fire Safety Practices defined in FMVSS 302.

The passenger and engine compartments shall be separated by a bulkhead(s) which shall, by utilization of fire resistant materials in its construction, be a firewall. This firewall shall preclude or retard propagation of an engine compartment fire into the passenger compartment. Only necessary openings shall be allowed in the firewall, and these shall be fire resistant. Any passageways for climate control system air flow shall be separated from the engine compartment by fire resistant material. Piping through the bulkhead shall be copper, steel, or brass, and shall be sealed with fire-resistant material at the firewall. Wiring may pass through the bulkhead only if connectors or other means are provided to prevent or retard fire propagation through the firewall. The conduit and bulkhead connectors shall be sealed with fireproof material at the firewall.

Engine access panels in the firewall shall be fabricated of fireproof material and secured with fireproof fasteners. These panels, their fasteners, and the firewall shall be constructed and reinforced to minimize warping of the panels during a fire that will compromise the integrity of the firewall. The coach body shall be adequately sealed to prevent the intrusion of smoke, fuel, and fumes into the coach interior. Smoke test shall be conducted on each coach as part of vehicle acceptance.

TS 6.6.9 FIRE SUPPRESSION SYSTEM

TS 6.6.9.1 FIRE SUPRESSION

The bus shall have a fire suppression system installed per manufacturer’s recommendations. The vehicle shall be equipped with an Amerex ABC dry chemical pre-engineered fire suppression system, model SafetyNet V-25 or approved equal.

The automatic actuation system shall provide 24-hour fire detection of the engine compartment.

The Amerex System shall include the following features:

• A minimum of two 25 pound capacity ABC agent cylinders of the stored pressure design shall be furnished. Each will be constructed of welded steel and must conform to DOT specification 4BW, and be rated for 12 year minimum hydrostatic retest. The cylinders shall be outfitted with a visual pressure gauge that may be located in the baggage department and protected by a guard with forged brass valve assemblies.

• The fire suppression system shall be provided with a minimum of four temperature sensitive weather proof miniature thermostats located in the vehicle engine compartment and two optical detectors, one of which will specifically monitor the engine turbo area. Thermostats shall be approved by Factory Mutual (FM) as heat actuated fire detectors. The detectors shall be normally open and capable of carrying sufficient amperage for the purposes of firing the electric actuator(s).

• The electrical control head shall also be activated manually by depressing an electric switch (button with pull-pin, labeled "fire") mounted in drivers compartment area within practical view and reach of the bus operator, and will actuate only the V-25 cylinder that is controlled by the two optical detectors.

• An Operator display shall be provided; The Amerex Vehicle SafetyNet Operator
Interface Display panel will provide a simple means of indicating system status to the vehicle operator or maintenance personnel. Basic system status is indicated via easy to read LED's and Buzzer indications. The Operator Interface Panel functions as the SafetyNet "brain". Basic programming can be performed via the front panel keypad by trained maintenance staff (only). More detailed programming is performed off -line, via a personal computer.

• Key Interface Panel features include:
  - Event Recording
  - Data Logging
  - Internal Audible Alarm with Silence
  - Relay Override
  - System Self-Test Function
  - Keyboard programming capability
  - Built in Battery back-up, for a minimum of 24 hours, in the event of vehicle power
  - Remote programming to laptop computer via RS-485 interface
- Environmentally Sealed Enclosure
- Easy to read Vacuum Fluorescent Display (VFD)
- System Status via LED indication
- Event indication provided via VFD display
- Automatic vehicle Shutdown feature (within 15 seconds or less of actuation)

• A total of eight (8) brass nozzles with dust caps shall be provided. The engine compartment will be outfitted with a minimum of eight nozzles.
• The system shall have the ability to operate and actuate separately, multiple zones of ABC agent, and have the ability to expand with additional agent cylinders when/if future fire requirements arise.
• The bus OEM shall provide a written sign off - 1st ARTICLE Report (from the fire suppression manufacturer) that all installation requirements have been met on the bus system.
• An inspection door(s) will be provided by the OEM on the bus body or interior compartment allowing for visual site inspection of EACH ABC agent cylinder/gauge. A low pressure switch at each cylinder will be provided to signal the operator display panel that there is a low pressure situation.
• Service Tools to be provided at time of first bus delivery include: two PN #16609Program Software and Interface Module, six PN 14027-Fire Test Module Simulators, and two PN#12129-Discharge Hose Blow-out Adapters.
• The operational state (ready, bypassed, alarm) of the fire suppression system shall be electronically monitored and reported to the Intelligent Vehicle Network.

TS 6.7 EXTERIOR AND APPLIED PANELS

TS 6.7.1 STRENGTH AND INSTALLATION

Exterior panels above and below the rubrail may be structural components. Panels shall be secured to structural members and shall have a smooth finish with no sharp edges.

TS 6.7.2 REPAIR AND REPLACEMENT

Exterior panels below the rubrail shall be divided into sections that are repairable or replaceable by a mechanic. Baggage doors shall be two-part with the joint at or below the rubrail.

TS 6.7.3 RAIN GUTTERS

Gutters shall be provided to minimize water flowing from the roof onto the side windows and passenger doors. When the coach is decelerated, the water shall not drain onto the windshield, driver's side window, the passenger boarding area or into the lift door area. Also, when the coach leans to the right side due to an incline, water shall not drain on passengers boarding or disembarking the coach through the installation of a roof rain guard. The roof rain guard shall be a one inch high roof mounted extrusion that extends from the curbside window rain gutter, across the coach roof to the street side window rain gutter.

TS 6.7.4 LICENSE PLATES

Provisions shall be made to mount standard size U.S. license plates on the rear of the coach. These provisions shall recess the license plate so that they can be cleaned by automatic coach washing equipment without being caught by the brushes. Four fasteners shall be utilized to retain license plate. License plate shall be mounted to the left of the coach center or in the center. Provision shall be made to illuminate the surface of the rear license plate only.

TS 6.7.5 RUBRAILS

Rubrails shall have a minimum height dimension of 2.5 inches and shall be composed of flexible, resilient material shall be provided to protect both sides of the coach body from damage caused by minor sideswipe accidents. The rubrail may be discontinued at doorways and the condenser intake grille. A damaged portion of the rubrail shall be replaceable without requiring removal or replacement of the entire rubrail.

TS 6.7.6 PACKAGE RACKS

No package racks are required.

The cooling mode of the interior climate control system shall introduce air into the bus at or near the ceiling height at a minimum rate of 25 cubic feet per minute (cfm) per passenger based on the standard configuration bus carrying a number of passengers equal to 150 percent of the seated load. Airflow shall be evenly distributed throughout the bus.

A minimum of 26 five-inch, 40 watt, 4-ohm speakers shall also be provided in the cluster panels for the dash mounted, driver controlled public address system. Speakers shall broadcast, in a clear tone, announcements that are clearly perceived from all seat positions at approximately the same volume level.

Passengers utilizing the securement systems shall be provided identical amenities as provided for all other passengers. Separate and independent notification will be provided on the dashboard indicator panel for stop request notification from securement positions. Behind the driver shall be a separate

enclosed driver's compartment. The compartment door shall include a keyed alike lock to secure the radio/video equipment. On the curbside of the coach shall include a separate enclosed driver's compartment.

TS 6.7.7 UNDERFLOOR BAGGAGE COMPARTMENTS

Full width under floor baggage compartments shall be provided between the front and rear axles. Each compartment shall be separated by an aluminum panel but the front and rear bulkheads shall be stainless steel. The compartment doors shall be a two part with the joint at or below the rubrail, fully sealed vertical lift pantograph type. Each door shall include an aluminum frame with an aluminum outer panel. Doors shall be spring counter balanced for ease of operation. Each door shall be equipped with a keyed alike baggage door lock. They will have a key lock for the manual controls for the wheelchair lift and a 4 x 10 inch flush mounted breakaway type latch handle located with a center point approximately 38 inches off the ground. All components shall be secured with a keyed lock, key code to be established during pre-production. Each under floor compartment shall be pressurized and illuminated automatically with two 21 c.p. LED lamps when the doors are opened. The lights shall be wired to the engine run switch. The lamp fixtures shall be sealed to preclude the intrusion of dust and moisture into the fixture. The floor of the baggage compartments shall be corrugated aluminum.

Detailed drawings are to be provided with the bidder submittals which outline the lift, baggage bays, and detail the location of all junction boxes, fuel tank and electrical components located in the baggage bays. In addition location of radio box, batteries, power converter, kneeling valves and equalizer are to be provided.

TS 6.8 INTERIOR

The entire front end of the bus shall be sealed to prevent debris accumulation behind the dash and to prevent the driver’s feet from kicking or fouling wiring and other equipment. The front end shall be free of protrusions that are hazardous to passengers standing at the front of the standee line area of the bus during rapid decelerations. Paneling across the front of the bus and any trim around the driver’s compartment shall be formed metal or composite material. Composite dash panels shall be reinforced as necessary, vandal-resistant and replaceable. All colored, painted and plated parts forward of the driver’s barrier shall be finished with a surface that reduces glare. Any mounted equipment must have provision to support the weight of equipment.

TS 6.8.1 HEADROOM

Headroom above the aisle and at the centerline of the aisle seats shall be no less than 78 inches in the forward half of the bus tapering to no less than 74 inches forward of the rear settee. At the centerline of the window seats, headroom shall be no lower than 65 inches. Headroom at the back of the rear bench seat may be reduced to a minimum of 56 inches, but it shall increase to the ceiling height at the front of the seat cushion. In any area of the bus directly over the head of a seated passenger and positioned where a passenger entering or leaving the seat is prone to strike his or her head, padding shall be provided on the overhead paneling.

TS 6.8.2 DRIVER BARRIER

A barrier or bulkhead between the driver and street side front passenger seat shall be provided. The barrier shall eliminate glare and reflections in the windshield directly in front of the barrier from interior lighting during night operation. The drivers barrier shall extend from below the level of the passenger or driver seat cushion, whichever is lower, to above the level of the seated driver's head and shall fit within 1.5 inches from the coach side window/wall to prevent passengers from reaching the driver or his/her

personal effects. The barrier design shall accommodate a minimum nine-inch fore and aft travel of the specified operator's seat.

The driver's barrier shall be constructed of clear .472 inches thick Lucite glazing. The barrier shall be a shatter-proof clear acrylic sheet that meets AS standards AS-4 or AS-5. The glazing shall be indelibly marked with the manufacturer's name and type of material. On the aisle side, the barrier shall be cut out from the vertical stanchions to permit passengers to use the stanchion as a handhold. Any panels above and below the glazing shall be complementary in color to the sidewall material. A schedule holder will be supplied and installed on the passenger side of the driver's modesty panel clear Plexiglas.

TS 6.8.3 MODESTY PANELS

Sturdy modesty panels constructed of durable, unpainted, corrosion-resistant material complementing the interior trim shall be provided at the rear of the stepwell. The modesty panel and its mounting shall withstand normal kicking, pushing, and pulling loads of 200-pound passengers without permanent visible deformation. Curbside modesty panel is to be cutback at the top to provide maximum clearance for farebox.

TS 6.8.4 REAR BULKHEAD

The rear bulkhead paneling shall be contoured to fit the ceiling, side walls and seat backs so that any litter or trash will tend to fall to the floor or seating surface when the bus is on a level surface. Any air vents in this area shall be louvered to reduce airflow noise and to reduce the probability of trash or liter being thrown or drawn through the grille. If it is necessary to remove the panel to service components located on the rear bulkhead, then the panel shall be hinged or shall be able to be easily removed and replaced. Grilles where access to or adjustment of equipment is required shall be heavy duty and designed to minimize damage and limit unauthorized access.

The rear bulkhead and rear interior surfaces shall Altro Transflor Chroma 2.7 slip resistant flooring (color Chroma Windmill/CR 27404 Pluto) or approved equal.

TS 6.8.5 CONSTRUCTION

Interior panels may be integral with, or applied to, the basic coach structure. They shall be decorated in accordance with and compliment the interior specified. Use of moldings and small pieces of trim shall be minimized, and all parts shall be functional. Panels shall be of backed melamine, vinyl-clad aluminum or vinyl-clad steel. Front and rear closures shall be fiberglass with color molded in, and there shall be no painted surfaces. The lower sidewall shall be melamine panels sectionalized for ease of repair.

TS 6.8.6 FASTENING

Interior panels shall be attached so that there are no exposed edges or rough surfaces. Fasteners should be corrosion resistant. Panels and fasteners shall not be easily removable by passengers. Exposed interior fasteners should be minimized, and where required shall be tamper resistant.

Any insulation material used between the inner and outer panels shall minimize the entry and/or retention of moisture. Insulation properties shall be unimpaired during the service life of the bus. Any insulation material used inside the engine compartment shall not absorb or retain oils or water and shall be designed to prevent casual damage that may occur during maintenance operations.

The combination of inner and outer panels on the sides, roof, wheel wells and ends of the bus, and any material used between these panels, shall provide a thermal insulation sufficient to meet the interior

temperature requirements. The bus body shall be thoroughly sealed so that the driver or passengers cannot feel drafts during normal operations with the passenger doors closed.

TS 6.8.7 FLOOR

TS 6.8.7.1 STRENGTH

The floor deck may not be integral with the basic structure but shall be mounted on the structure securely to prevent chafing or horizontal movement. Sheet metal screws shall not be used to retain the floor. All floor fasteners shall be secured and protected from corrosion for the service life of the coach.

The floor deck shall be reinforced as needed to support passenger loads. At GVWR, the floor shall have an elastic defection of no more than 0.375 inches from the normal plane. The floor shall withstand the application of 3.0 times gross load weight without permanent detrimental deformation.

TS 6.8.7.2 EDGES

The floor shall be essentially a continuous flat plane, except at the stepwell. Where the floor meets the walls of the coach, the surface edges shall be blended with a circular section of radius not less than one inch and a molding or cover shall prevent debris accumulation between the floor and wall.

Interior flooring shall be flat throughout except for an eight foot long welded ramp in the aisle section at the front which is sloped 5.35 degrees and has a three inch riser under the #1 RH passenger seat. The floor is attached to the under frame with adhesive and mono bolt rivets. Wheel housings may not extend above floor line.

Rubber flooring adhesion procedure includes butt cut type edges that are securely bonded to the composite floor with a waterproof adhesive. All edges must be welded. Flooring areas which are edge-bound with stainless steel shall include the sidewall on each side, the ramp in the center aisle, the base of rear cross seat, and the step up under the #1 seat.

Access openings in the floor shall be sealed to prevent entry of fumes and water into the coach interior. Flooring material shall be flush with the floor and shall be edge bound with stainless steel to prevent the edges from coming loose. Access openings may be symmetrical if the fasteners are arranged to ensure alignment of the flooring. Fasteners shall be flush with the floor when secured.

TS 6.8.7.3 FLOOR PROTECTION

The floor, as assembled, including the sealer, attachments, and covering, shall be waterproof, non-hygroscopic, resistant to heat, dry rot, mold growth, and impervious to insects. The entire composite floor shall be no less than ½-inch thick, water resistant and shall be installed with all edges sealed.

TS 6.8.8 STEP AND STEPWELL

TS 6.8.8.1 STEPS

There shall be no more than four steps and no step shall be located between the vestibule and passenger compartment. A ramp shall be provided in this area with the rate of rise not to exceed 3/4-inch per foot with a maximum vertical rise of nine inches.

All step treads shall be of uniform depth no less than 11 inches and a uniform height of no less than 9.5 inches. The plane of the step treads shall be parallel to the plane of the floor. Treads shall be covered with Altro Transflor Chroma "Windmill" 2.7 slip resistant flooring (color Pluto – CR27404) or approved equal, that shall remain effective in all weather conditions. Color of the tread covering shall match the

vestibule flooring. The edge of the vestibule floor shall have no overhang at the step riser. The edge of the vestibule floor and the edge of each of the step treads shall have a bright, contrasting white band, two inches wide, the width of the step. This band shall be uniform in width across the entire step and vestibule edge.

TS 6.8.8.2 STEPWELL CONSTRUCTION

Stepwell shall be constructed of stainless steel or aluminum FRP (fiberglass reinforced plastic). The steps shall simultaneously support 300-pound loads evenly distributed over the center half of each step tread without permanent deformation and with elastic deflection of no more than 0.0625 inches. Each step tread shall support a load of 500 pounds evenly distributed over the center half of the tread without permanent deformation. A minimum 1-inch (25.4 mm) thick TUf-Coat or approved equal, self-adhesive insulation shall be provided behind the stepwell area for added control of interior temperature variances and to minimize road noise.

TS 6.8.9 WHEEL HOUSING

TS 6.8.9.1 CONSTRUCTION

Wheel housings shall be constructed of stainless steel. Wheel housing, as installed and trimmed, shall withstand impacts of a two-inch steel ball with at least 200 foot-pounds of energy without penetration.

TS 6.8.9.2 CLEARANCE

Sufficient clearance and air circulation shall be provided around the tires, wheels, and brakes to preclude overheating. Tire clearance shall be provided on all drive wheels in accordance with SAE Information Report J683. Interference between the tires and any portion of the coach shall not be possible in maneuvers up to the limit of tire adhesion with weights from net to GVWR.

TS 6.8.9.3 FENDER SKIRTS

Front and rear wheelwells shall be fully skirted with brushes or rubber to minimize spray and splash. The fender skirts or brushes shall be damage resistant and easily replaceable. They shall be flexible if they extend beyond the allowable body width. Wheels and tires shall be removable without disturbing the fender skirts.

TS 6.8.10 SPLASH APRONS

Splash aprons, composed of X-inch minimum composition or rubberized fabric or 3/16-inch nylon reinforced rubber, shall be installed behind each front wheel and the rearmost wheels and shall extend downward. Apron widths shall be no less than tire widths. Splash aprons shall be bolted to tapping plates which are welded to the coach understructure. The tapping plates shall support the splash apron across its entire width. Splash aprons and their attachments shall be inherently weaker than the structure to which they are attached. Splash aprons and their attachments shall not be included in the road clearance measurements. Other splash aprons shall be installed where necessary to protect coach equipment.

TS 6.8.11 PASSENGER DOORS

The passenger door shall be an air power operated sedan type or a single panel plug door with a switch convenient to the operator. Door construction shall include a stainless steel frame. The door's interior surface shall include a one-piece fiberglass reinforced plastic panel on the upper portion and a stainless steel kick panel on the lower. Entrance door will be controlled by a stainless steel toggle switch located on the driver's left hand console. An exterior door control switch shall be located in a

protected and secure position to the rear of the entrance door. A sturdy hinged casting shall be used at the top and a painted hinge casting with a chrome self-aligning ball bearing shall be used at the bottom of the door.

Door projection shall not exceed seven inches out from the side of the coach while in the fully open position and shall not exceed 10 inches while going through the opening and closing cycle. The front door leaf leading edge shall rest within one inch of the front bumper when fully opened. All door glazing shall be double-glazed, laminated safety-glass tinted the same as the windshield and indelibly marked AS-2. Door glazing shall make up 65 percent of the surface area of the door.

Provisions shall be made to permit all glass in the passenger door to be defrosted with activation of the coach defroster system or main passenger heating/air conditioning system. An entrance door key lock shall be provided on each coach along with two spare keys. Key code shall be established during pre-production meeting.

TS 6.8.12 SERVICE COMPARTMENTS AND ACCESS DOORS

TS 6.8.12.1 INTERIOR

Access for maintenance and replacement of equipment shall be provided by panels and doors that appear to be an integral part of the interior. Removal of fixtures or equipment unrelated to the repair task to gain access shall be minimized. Access doors, if hinged, shall be hinged with props, as necessary, to hold the doors up and out of the mechanic's way with the exception of the destination sign box door which may be hinged down and can be held by chains in the open position. Panel fasteners shall be standardized so that only two tools are required to service all special fasteners within the coach. These fasteners shall be captive in the panel except for the engine compartment and antenna access hatches. Access doors for the door actuator compartments shall be secured with hand screws or latches, and shall be sealed to prevent entry of mechanism lubricant into the coach interior. All hinges and props must be designed to preclude accidental closure when the panels are opened.

TS 6.8.12.2 EXTERIOR

Vertically or horizontally hinged doors shall be used for the engine compartment and or all auxiliary equipment compartments including doors for checking the quantity and adding to the engine coolant, engine lubricant, transmission fluid and the windshield washer reservoir. The upper engine radiator/C.A.C. compartment door may be horizontally hinged. Access to these compartments shall be from outside the coach. Access openings shall be sized for easy performance of tasks within the compartment including tool operating space. Access doors shall be of rugged construction and shall be capable of withstanding severe abuse throughout the life of the coach. They shall close flush with the body surface. All doors shall be hinged at the top or on the forward edge and shall be prevented from coming loose or opening during transit service or in coach washing operations. Doors with top hinges shall have safety props stored behind the door or on the door frame. All access doors (except vertically hinged access doors) shall be sufficiently retained in the open position by props or counterbalancing.

Springs and hinges shall be corrosion-resistant and shall last throughout the service life of the coach. Latch handles shall be sized to provide an adequate grip for opening. Large access doors shall hinge up and out 'of the way or fold flat against the coach body and shall be easily operable by one person. These doors, when opened, shall not restrict access for servicing other components or systems. Retention devices utilized to hold the engine compartment access doors in the open position shall be heavy duty and designed to last the service life of the coach. A counter-balanced or spring system should operate large doors but, if not practicable, a powered assist device may be used, provided it is equipped with a manual system to open the doors manually in less than 30 seconds. The manual system shall be easily accessible and quickly operable by one person in the event of a power or air system failure or engine compartment fire.

TS 6.9 OPERATING COMPONENTS

TS 6.9.1 DOORS

TS 6.9.1.1 CONTROL

Operation of, and power to, the passenger door shall be completely controlled by a switch located in close proximity to the driver and near the steering wheel. A control or valve in the driver's compartment shall shut off the power to, and/or dump the air from the front door mechanism to permit manual operation of the front door with the coach shut down. A toggle switch on the exterior of the coach located aft of the passenger door shall permit opening of the front door. The switch shall be concealed behind an unmarked door. The door switch cover shall be spring loaded so as to be held in the closed position.

TS 6.9.1.2 ACTUATORS

The passenger door assembly shall be operated with a single pneumatic differential actuator and air cylinder(s) with one cylinder cushioned in the door opening mode. The nominal door opening and closing speed shall be in the 3-5 second range. The maximum door opening and closing speeds will be regulated using fixed, maintenance free orifices and airline sizes. If required, door speeds can be decreased with the addition of a flow-restricting device. Actuators and the complete door mechanism shall be concealed from passengers, but shall be easily accessible for servicing. All elements of the door actuator system shall operate without a Class 3 failure for 50,000 miles

TS 6.9.1.3 MANUAL OPERATION

In the event of an emergency, it shall be possible to open the doors manually from inside the coach using a force of no more than 35 pounds after actuating an unlocking device. Any signage detailing the method of operation of door in an emergency shall not reference the "emergency operation" of the door. All references shall detail the "manual" operation of the door.

TS 6.9.2 WINDSHIELD WIPERS AND WASHERS

TS 6.9.2.1 WINDSHIELD WIPERS

The coach shall be equipped with variable speed electric windshield wipers for each half of the windshield with separate controls for each side. At 60 mph, no more than 10 percent of the wiped area shall be lost due to windshield wiper lift. Both wipers shall park along the center vertical edges of the windshield glass. Windshield wiper motors and mechanisms shall be easily accessible for repairs or service from outside the coach only and shall be removable as complete units. Mounting shall preclude cracking or damage to the windshield frame. Power supply to the wiper motors shall be provided through a dedicated circuit.

An intermittent operation feature for each wiper shall be provided with a variable time delay. After each pause, the wiper shall make one complete cycle across the windshield surface and return to the park position automatically.

TS 6.9.2.2 WINDSHIELD WASHERS

The windshield washer system shall deposit washing fluid on the windshield and, when used with the wipers, shall evenly and completely wet the entire wiped area. Two separate washer pumps are to be provided. Stationary spray nozzles shall be provided; wet arm wipers shall not be permitted.

The windshield washer system shall have a minimum 3.75 gallon translucent reservoir, located for easy refilling. Washers shall be accessible from the outside of the coach. Reservoir shall be serviceable through a separate lower service door below the main front electrical box. Reservoir pumps, lines and fittings shall be corrosion-resistant, and the reservoir itself shall be translucent for easy determination of fluid level.

TS 6.9.3 LIGHTING, CONTROLS, INSTRUMENTS

TS 6.9.3.1 EXTERIOR LIGHTING

All exterior lighting systems shall be nominal 12 or 24 VDC. The use of Dialight LED lamp assemblies shall be used for all exterior lighting, except headlights. Headlights shall be I-0 Controls all LED system that changes direction with the steering of the bus. All exterior lighting fixtures shall be sealed to prevent entry and accumulation of moisture or dust and each lamp shall be replaceable in less than 5 minutes by a mechanic. Lights if mounted on the engine compartment doors, shall be protected from the impact shock of door opening and closing. Lamps, lenses and fixtures shall be interchangeable to the extent practicable, and fixtures shall be corrosion resistant with sockets to be brass or stainless steel or plastic housings. Lamps at the rear of the coach, except the license plate lamp, shall be visible from behind when the engine service doors are opened. Sockets shall comply with SAE Standard J576C.

Visual and audible warnings shall inform following vehicles or pedestrians of reverse operation. Visual reverse operation warning shall conform to SAE Standard J593. Audible reverse operation warning shall conform to SAE Recommended Practice J994-Type C or D. Daytime running lights are to be provided. Coach hazard warning lights shall be automatically activated upon opening of the passenger door or selection of the reverse gear function of the transmission. A lamp above the entrance door inside the coach shall illuminate only when the door is open and shall illuminate the street surface to a level of no less than one-foot candle for a distance of three feet outward from the lowest step tread edge. The lamp shall be shielded to protect passenger's eyes from glare.

Two flush mounted LED curb lights shall be provided on the curb side of the coach in close proximity of the front and drive wheels. The LED curb lights shall project lighting to the street surface around the front and drive wheels and shall be activated in conjunction with the opening of the passenger door. These lights shall extinguish within 15 seconds after closing of the passenger door and shall operate with the master switch in the ON position and the door circuit energized. The timer used to extinguish the curb lights shall be adjustable between 0 and 30 seconds.

Amber colored LED turn signal lamps shall be provided on both the front and rear of the coach. All lighting shall meet Federal standards (including amended 49 CFR Part 571 effective December 26, 1984). Side LED lamps shall be provided, two per side. The front right lamp shall be near the front wheelwell, above the rubrail line and no higher than the wheelwell. The front left side lamp shall be located at the same height and forwardness as the right. The side signal lamps shall be of the armor protected type with unobstructed amber lens. The rear side signal lamps shall be generally located in the vicinity of the rear wheel well and shall have amber lens. A circuit shall be provided for the directional signals which, when on, will cause them to function as traffic hazard warning signals.

LED roof marker lamps shall be provided at each end of the coach with amber front and red rear lens being provided. Intermediate LED marker lamps with amber lens shall be provided on each side of the roof line at the center of coach. Reflectors on the sides and rear of coach shall be provided. The front and center side reflectors shall be amber. The rear side and rear reflectors shall be red. The reflectors shall be permanently affixed to the coach, glue on or pressure sensitive mountings are not acceptable.

Two LED stop lamps shall be mounted on the upper rear corners of the coach. The lamps shall have a projected luminous area of at least four square inches. The additional stop lamps shall be activated

upon application of the service brakes, and shall operate in conjunction with the standard coach stop lamps. The stop lamps shall be standalone lights and cannot function with tail lamps or turn signal lamps.

Two amber colored LED deceleration lamps shall be installed above the upper rear heat exchanger access panel. These lights shall be located equal distance from the coach centerline and shall be flush mounted. The decal lights shall be activated any time the master switch is in the ON position and the accelerator is in the idle position. The decal lights shall be steady burn when activated.

An LED rear license plate lamp shall be provided in the license plate well.

TS 6.9.3.2 SERVICE AREA LIGHTING

Four LED lamps shall be provided in the engine compartment to generally illuminate the area for night emergency repairs or adjustments. The lamps shall be controlled by a switch located near the rear start controls in the engine compartment. These lamp assemblies shall be adequately sealed to prevent the intrusion of moisture or debris during coach operation or normal servicing operations such as steam cleaning. Necessary lights, also sealed, shall be located in other service compartments, and shall be provided with maintain contact switches on the light fixture or convenient to the light.

TS 6.9.3.3 PASSENGER INTERIOR LIGHTING

Interior illumination of the coach shall be provided by an LED interior light system controlled by a three-position switch on the driver's right hand control panel. LED interior lighting shall be located by the side windows and along each side of the central ceiling. The lighting system may be designed to form part of / or the entire air distribution duct. Lighting intensity, measured at a vertical plane 24 inches (610 mm) above the seat cushion, shall be a minimum 15-foot candles. Blue running lights shall be provided for night lighting with one located at each end of the coach and one LED light mounted in the ceiling at the rear of the coach.

A minimum of six blue LED aisle lights shall be provided on the underside of the street side passenger seats. These lamps shall be mounted in such a manner so as to prevent passengers from damaging the LEDs when they are illuminated. Additional general lighting required to illuminate the interior for passenger exits and shall be interlocked to activate only when the passenger door is opened.

An LED stepwell lighting system shall be wired to illuminate when the front door is opened. The system shall provide no less than two-foot candles of illumination of the step treads with the doors open. These lights shall not glare in the passengers' eyes. Lamp fixtures shall be totally enclosed, splash-proof, designed to provide ease of cleaning as well as lamp and housing removal, and shall not be easily removable by passengers. Stepwell lamps shall be protected from damage caused by passengers kicking lenses or fixtures and shall not be a hazard to passengers. Three lamps shall be provided; a dome at the top of the stepwell, one on each side of the stepwell, with the bottom one to also provide illumination of the ground area located inside and above the entrance door.

TS 6.9.3.4 DRIVER'S LIGHTING

The driver's area shall have an LED lamp to provide general illumination of the driver's area and shall illuminate the half of the steering wheel nearest the driver to a level of 15-foot candles. This LED lamp shall be controlled by a switch that is convenient to the driver. An additional lamp shall provide general illumination of the fare collection equipment to a level of 15-foot candles. The farebox lamp shall be activated when the door is open with step light and chime switch in the ON position. The light shall extinguish when the door is closed.

TS 6.9.3.5 DRIVER CONTROLS

All switches and controls necessary for the operation of the coach shall be conveniently located in the driver's area and shall provide for ease of operation. These switches shall be of high design suitably selected for signal switching power or loads with a design life of over 100,000 cycles. Engine Run/Stop/Headlights and Clearance Lights will be combined into one rotary switch. Switches and controls shall be essentially within the hand reach envelope described in SAE Recommendation Practice, J287, Driver Hand Control Reach. Controls shall be located so that boarding passengers may not easily tamper with control settings.

Door control switch shall also be of toggle type design. The following controls shall have unique color or longer lengths to provide easy access for the operation of passenger door, hazard warning lamps and fast idle.

Accelerator and brake pedals shall be designed for ankle motion. Foot surfaces of the pedals shall be faced with wear-resistant, nonskid, replaceable material that is glued on. Pedal travel shall be limited by stops under the pedals. At least six inches of slack shall be provided in the accelerator and brake pedal air lines to provide ease of component replacement.

Controls for engine operation shall be closely grouped within the driver's compartment. A silent, foot operated double pole switch shall be located near the driver's left foot. When activated, the "Emergency Call Police" sign posting shall be displayed on the front and side and rear destination signs as well as provide a signal to the mobile radio system and Intelligent Vehicle Network.

The door control, kneel control, windshield wiper/washer controls, and run switch shall be in the most convenient driver locations. They shall be identifiable by shape, touch, and markings. Door shall be operated by a single toggle or push button control, conveniently located for easy reach by the operator. The location of this control shall be easily determined by position and touch. The turn signal and high beam switches shall be floor-mounted, foot controlled, waterproof, heavy-duty, on-off contact switches.

All switches and controls shall be marked with easily read identifiers. All panel-mounted switches and controls shall be replaceable, and the wiring at these controls shall be serviceable from the vestibule or the driver's seat. A momentary engine overrule switch shall be provided on the driver control panel to permit the driver to move the coach off the road. The overrule switch shall be a spring loaded switch with a guarded cover. All labeling of controls shall be permanent.

A beverage holder will also be provided in the driver's area.

TS 6.9.3.6 INSTRUMENTATION

The speedometer, air pressure gauge(s), and certain indicator lights shall be located on the front cowl immediately ahead of the steering wheel. The steering wheel spokes or rim shall not obstruct the driver's vision of the instruments when the steering wheel is in the straight ahead position. Illumination of the instruments shall be simultaneous with the marker lamps.

Glare or reflection in the windshield, side window, or front door windows from the instruments, indicators, or other controls shall be minimized. Instruments and indicators shall be easily readable in direct sunlight.

Indicators immediately in front of the driver shall at a minimum include:

Headlamp High beam
Right Turn
Left Turn
Hazard warning
Parking brake applied

Service brakes applied ("STOP LIGHTS" - may be common with parking brake indicator)

The instrument panel shall be a programmable virtual dash manufactured by 1-0 Controls and shall include a speedometer indicating no less than 80 mph and calibrated in maximum increments of five mph. The speedometer shall be a rotating point type, with a dial deflection of 220˚ to 270˚ and 40 mph near the top of the dial.

The speedometer shall be sized and accurate in accordance with SAE Recommended Practice J678. A programmable electronic speedometer with odometer indicating vehicle speed in miles per hour, between 0 mph and 80 mph, shall be supplied. Speedometer speed and odometer mileage readings must be accurate within limits of plus nothing to minus two percent when coaches are equipped with new tires. The speedometer shall be equipped with an odometer with a capacity reading no less than 999,999 miles.

The instrument panel shall also include air brake reservoir pressure gauge(s) with indicators for front and rear air tanks. The instrument panel and wiring shall be easily accessible for service from the driver's seat or top of the panel. Wiring shall have sufficient length and be routed to permit service without stretching or chafing the wires.

A FLEETWATCH Model JX55 data logger as manufactured by S & A Systems, Inc. or approved equal shall be installed on each coach. Each data logger shall be suitable for mounting on a cruiser type coach and connecting directly to a *J1708/1939* connector on the coach. The coach manufacturer shall communicate clearly with S & A Systems to ensure that the units being supplied are similar in every way to those units currently being provided to BCT by S& A Systems. BCT will program the JX55 after coach delivery.

TS 6.9.3.7 VISUAL AND AUDIBLE WARNING DISPLAY

Critical systems or components shall be monitored with a built-in diagnostic system. This diagnostic system shall have visual and audible indicators. The diagnostic indicator lamp panel shall be located in clear sight of the driver but need not be immediately in front of the operator and shall incorporate LED telltale lights. The intensity of indicator lamps shall permit easy determination of on/off status in bright sunlight but shall not cause a distraction or visibility problem at night. An audible alarm shall sound when certain malfunctions are detected by the diagnostic system. The audible alarm shall be loud enough for the driver to be aware of its operation and is inclined to discontinue operation of the coach. Malfunction warnings and other indicators listed in Figure 2 shall also be supplied on the coach. Space shall be provided on the panel for future additions of no less than four indicators as the capability of onboard diagnostic systems improves. A baggage door open telltale shall not be provided. All diagnostic indicators shall be simultaneously tested by the activation of master switch.

NOTE:
(a) This indicator may be located on electronic transmission control panel
(b) These indicators may be combined with CHECK ENGINE indicator provided by engine manufacturer.

TS 6.10 INTERIOR TRIM

TS 6.10.1 GENERAL REQUIREMENTS

The interior trim shall be generally pleasing, simple, modern, and free from superficial design motifs. It shall have no sharp depressions or inaccessible areas and shall be easy to clean and maintain. To the extent practicable, all interior surfaces more than 10 inches below the lower edge of the side windows or windshield shall be shaped so that objects placed on them fall to the floor when the coach is parked on a level surface. Water and soap should not normally be sprayed directly on the instrument and

switch panels. Handholds, lamps, air vents, armrests, and other interior fittings shall appear to be integral with the coach interior. There shall be no sharp, abrasive edges and surfaces and no unnecessary hazardous protuberances. All plastic and synthetic materials used inside the coach shall be fire resistant.

Materials shall be selected on the basis of maintenance, durability, appearance, safety, flammability, and tactile qualities. Trim and attachment details shall be kept simple and unobtrusive. Materials shall be strong enough to resist everyday abuse and vandalism; they shall be resistant to scratches and markings. Interior trim shall be secured to avoid resonant vibrations under normal operational conditions.

TS 6.10.1.1 TRIM PANELS

Interior side trim panels and driver's barrier - shall be textured stainless steel, anodized aluminum, plastic, melamine type material, vinyl-clad aluminum or fiberglass reinforced plastic. The material shall permit easy removal of paint, greasy fingerprints, and ink from felt tip pens. Panels shall be easily replaceable and tamper resistant. They shall be reinforced, as necessary, to resist vandalism and other rigors of commuter coach service. Interior mullion trim, molding, and trim strips shall be textured stainless steel, vinyl-clad aluminum, anodized aluminum or vacuum formed plastic.

Interior panels between window mullions will be Blue Moraine gloss finish. Below windows to seat will be Blue Moraine gloss finish.

TS 6.10.1.2 HEADLINING

Headlining shall be supported to prevent buckling, drumming, or flexing and shall be secured without loose edges. Headlining materials shall be treated or insulated to prevent marks due to condensation where panels are in contact with metal frame members. Molding and trim strips, as required to make the edges tamper-resistant, shall be stainless steel. Headlining panels covering operational equipment mounted above the ceiling shall be on hinges for ease of service but retained to prevent inadvertent opening. The access panel for the antenna base does not require to be hinged but shall be mounted with tamper-proof screws. Materials for the headlining shall be Chiffon gloss finish.

TS 6.10.1.3 FRONT END

The entire front end of the coach shall be sealed to prevent debris accumulation behind the dash and to prevent the driver from kicking or fouling wiring and other equipment with his feet.

The front end shall be free of protrusions that are hazardous to passengers standing or walking in the front of the coach during rapid decelerations. Formed metal dash panels shall be painted and finished to exterior quality or may be ASS, fiberglass or vinyl-clad. All parts forward of the driver's barrier shall be finished with a dull matte surface. Colors shall match or coordinate with the balance of the coach interior.

TS 6.10.1.4 REAR END

The rear bulkhead and rear interior surfaces shall be paneled with Altro Transflor Chroma 2.7 slip resistant flooring (color SaturnTFCR-22406) or approved equal, trimmed with stainless steel or approved equal.

TS 6.10.1.5 PASSENGER INFORMATION

Provisions shall be made on the rear of the driver's barrier and rear wall or bulkhead for a frame to retain informational material sized 14 x 20 inches. The two frames per coach shall be made out of Plexiglas and conform to the design provided by BCT.

TS 6.10.2 PASSENGER SEATS

TS 6.10.2.1 ARRANGEMENTS

Passenger seats shall be arranged in a transverse, forward facing configuration, and shall accommodate the installation of a wheelchair lift. All seated positions shall have no less than 29 inches hip to knee room and no footrests.

Passenger seats will be USSC PATRIOT (non-reclining) with stainless steel frames (or approved equal) with vandal resistant inserts treated with anti-bacterial and anti-graffiti treatment. Fabric shall be PT2C 'tough to cut') material.

Each passenger seat will be equipped with a 12 volt power outlet for the convenience of passengers.

Each transverse forward facing seat, except the rear seats, shall accommodate two adult passengers. The area between the longitudinal seat backs and the attachment to the bus side walls shall be designed to prevent debris accumulation.

The rear transverse seat center three seating locations shall be removable providing easy access to engine access panels. Seats to be hinged and have a safety prop to keep them up and out of the way of a mechanic working through the access. Rear settee shall have a close out to prevent collection of debris around/under the seat.

Two wheelchair securement positions shall be provided to meet ADA. Securement areas may have fold-down or flip-up seats. The maximum bus passenger capacity shall be determined by totaling the seated capacities and one standee passenger for each 1.5 square feet of free floor space.

The vehicle interior shall permit the securement of two forward facing wheelchair passengers in which the primary position shall be on the street side of the coach directly across from the lift. Securement area shall meet all ADA requirements. The stop request control shall be no higher than four feet and no lower than 15 inches above the floor in this area and shall require a force, of no more than five pounds to activate. The stop request shall be of the slap pad design and mounted in a location to prevent accidental activation by passengers.

Maneuvering room inside the bus shall accommodate easy travel for a passenger in a wheelchair from the loading device through the bus to the designated parking area and back out. No portion of the wheelchair or its occupant shall protrude into the normal aisle of the bus when parked in the designated parking space(s). The successful bidder shall demonstrate that the entryway, aisle and all turning areas will accommodate a sled pulled through the areas that is manufactured to the largest ADA dimensions.

A separate belt securement shall be provided to effectively secure the wheelchair. Restraint system shall be a fully integrated wheelchair securement station specifically designed and tested for transit wheelchair passenger transportation and be provided by the seat manufacturer. All belts shall be retractable and permanently mounted. A convenient retractable belt storage system is to be incorporated in the overall securement system so that all belts are easily stored out of the way when not in use. A retractable lap/shoulder belt passenger restraint shall be provided for each of the two securement locations. Parking space shall be compliant with ADA requirements. The wheelchair securement and occupant restraint system must be tested and meet the requirements of the ADA.

To further secure the passenger during the lift operation, a retractable seat belt strap shall be provided at the rear of the lift area for additional passenger protection.

The Coach manufacturer shall identify the number of seated positions lost on any bus configuration in order to accommodate two wheelchair passengers occupying the securement positions during the Approved Equal Process. Footrests are not required. Floor mounted seat tracks shall be stainless steel and shall be welded to the coach frame and be nearly flush with the finished floor. The wall tracks shall be stainless steel and shall be welded, bolted or riveted to the sidewall.

TS 6.10.2.2 STRUCTURE AND DESIGN

The passenger seat frame and its supporting structure shall be constructed and mounted so that space under the seat is maximized to increase wheelchair maneuvering room and is completely free of obstructions to facilitate cleaning. The structure shall be fully cantilevered from the side wall with sufficient strength for the intended service. The lowest part of the seat assembly that is within 12 inches of the aisle shall be at least 10 inches above the floor. The underside of the seat and the side wall shall be configured to prevent debris accumulation. The exposed areas of the seat track rail shall be filled to prevent debris from being placed in these areas. The transition from the seat underside to the bus side wall to the floor cove radius shall be smooth. The back of each transverse seat shall incorporate a handhold no less than 7/8 inches in diameter for standees and seat access/egress. The handhold shall not be a safety hazard during severe decelerations. The handhold shall extend above the seat back near the aisle so that standees shall have a convenient vertical assist, no less than four inches long, that may be grasped with the full hand. This handhold shall not cause a standee using this assist to interfere with a seated 50th-percentile male passenger. The handhold shall also be usable by a 5th-percentile female, and by larger passengers, to assist with seat access/egress for either transverse seating position. The seat back handhold may be deleted from seats that do not have another transverse seat directly behind and where vertical assist is provided. The seat back handhold shall be designed to protect a passengers head from injury due to bumping the handhold during entrance and egress and in the event of a sudden stop of the bus. Armrests shall not be included in the design of transverse seats. Longitudinal seats shall be the same general design as transverse seats but without seat back handholds. Longitudinal seats may be mounted on the wheelhouses. Armrests shall be included on the ends of each set of longitudinal seats except on the forward end of a seat set that is immediately to the rear of a transverse seat, the driver's barrier, or a modesty panel and these fixtures perform the function of restraining passengers from sliding forward off the seat. Armrests are not required on longitudinal seats located in the wheelchair parking area that fold up when the armrest on the adjacent fixed longitudinal seat is within 1-1/2 to 3-1/2 inches of the end of the seat cushion. Armrests shall be located from seven to nine inches above the seat cushion surface. The area between the armrest and the seat cushion shall be closed by a barrier or panel and shall be constructed and trimmed to complement the modesty panels. The top and sides of the armrests shall have a minimum width of two inches and shall be free from sharp protrusions that form a safety hazard. The seat back handholds and armrests shall withstand static horizontal and vertical forces of 250 pounds applied anywhere along their length with less than 1/4" inch permanent deformation. The seat back handholds and armrests shall withstand 25,000 impacts in each direction of a horizontal force of 125 pounds with less than ¼ inches permanent deformation and without visible deterioration. Certified test reports showing compliance with this requirement must be presented to BCT prior to bid award.

Seating and interior trim shall have features to maximize safety, comfort, and capacity. The hip-to-knee room in all seating positions shall be no less than 29 inches. Selected materials shall minimize damage from vandalism and shall reduce cleaning time. Seat materials shall have anti-bacterial and anti-graffiti treatment (Fiber Protect) or approved equal and shall resist damage caused by regular commercial cleaning and polishing chemicals. Upholstery materials shall be selected based on durability, ease of maintenance, and pleasing texture and appearance. Seat back and bottom inserts to be held in with clips. Seat back enclosure and grab rails to be stainless steel (texture) and not ABS. Holdsworth and BusTec fabrics are acceptable for the passenger seats.

Seat frames shall be constructed of high strength, fatigue resistant, stainless steel, corrosion resistant finish which compliments the coach interior. The seat frame shall be wall mounted with heavy gauge

steel brackets and shall be attached to the coach floor with a heavy-duty stainless steel T pedestal. Seat width shall be nominal 40.5 inches. Aisle shall not be less than 14 inches wide.

TS 6.10.3 DRIVER'S SEAT

TS 6.10.3.1 DIMENSIONS

The driver's seat shall be a Recaro Ergo Metro, USSC Group 9100 ALX, or approved equal with black fabric covering. The driver's seat shall be adjustable and shall have up to 9.05 inches of adjustment fore and aft direction. The seat back and cushion shall be adjustable. The seat shall have cushion depth adjustment, height adjustment (5.5 inches maximum), seat back adjustment, rear cushion adjustment and lumbar adjustment so that operators ranging in size from the 98th percentile male to the 5th percentile female may operate the coach. The suspension control shall be ergonomically designed so that the operator can adjust the seat without looking. The suspension height adjustment and lumbar switches shall be operated with a rocker switch, no rotating knobs are acceptable. The seat suspension shall be capable of dampening varying frequencies that are transmitted through the vehicle caused by varying road conditions. The seat shall be cushioned by a dual shock absorber design. One shock shall be adjustable to allow the operator to control the ride settings. A rubber bumper is required to prevent bottoming out of the seat.

A rubber boot shall be provided to cover the suspension to eliminate the potential for pinching. All air lines are to be 1/4 inch diameter and have a quick disconnect at the back of the seat. The suspension shall have a minimum of 12 degrees of seat cushion tilt (rake adjustment).

The rake adjustment shall be dual-sided and be accomplished without leaving the seat. The seat cushion shall adjust from 18 to 20 inches for varying size drivers. Double locking seat tracks with stainless steel bearings shall be provided. The seat tracks shall be located below the seat cushion and above the pneumatic suspension to enhance track durability and improve rearward travel. The seat shall come equipped with an air track release and a manual center release. All controls are to be on the right-hand side of the seat.

The seat shall be equipped with manual dual recliner gears. The seat back shall be adjustable with dual sided hand controls and include a 24.5 degree recline stop. Recline stop is to prevent the seat from interfering with the driver's barrier. The seat back shall be infinitely adjustable from 90 to 114.5 degrees. The seat back shall come with a full protective plastic back shell. The back structure shall be constructed of steel and include a one piece stamped steel shell. The seat back shall be ergonomically designed and adjustable to provide exactly the right support to match the S-shaped curve of the operators back. The seat back foam shall be fully supported, no wires or spring support is to be provided. Solid steel bolster adjustment supports are required to provide strong lateral supports. Lateral supports will help hold the driver in place and reduce muscle fatigue while driving. The seat cushion shall be adjustable in length and rake to accommodate operators of various heights. The seat cushion shall have a two inch extension for taller operators. To accommodate shorter operators, the front of the seat cushion shall rake down and retract.

A three cell air lumbar with right hand controls shall be provided for lower back support. Each air bag shall be individually controlled. Switch design and layout shall be positioned so that the operator can adjust without looking. A four way adjustable headrest with six position vertical adjustment shall be provided. The seat shall be provided with a two-point 72 inch seat belt that is stored in plastic anti-cinch automatic retractors mounted on the left side of the seat. The seat belt buckle shall be located on the right hand side of the seat for easy access.

TS 6.10.3.2 STRUCTURE AND DESIGN

The driver's seat cushion shall be made of silicon foam. The foam shall be constructed to provide lateral support to provide better operator stability in curves and turns. All exposed metal on the driver's seat, including the pedestal, shall be unpainted aluminum or stainless steel. Required three point seat belts shall be fastened to the seat so that the seat may be adjusted by the driver without resetting the seat belt. Seat belts shall be stored in automatic, inertia locking type retractors that do not tighten up during operation. The retractor shall be located to the left of the driver; the latch mechanism shall be located on the right. The seat belt shall be designed to allow the operator to "set" the tension on the belt. The belt shall be designed to not creep, making the belt tighter or loose. The seat belt shall be long enough to secure a 98 percent male driver.

Driver's seat shall be covered in Manufacturer's standard black fabric. Seat cushions shall withstand 100,000 randomly positioned 3-1/2 inch drops of a squirming, 150 pound, smooth surfaced, buttocks-shaped striker with only minimal wear on the seat covering.

An I/O Controls, or approved equal, seat alarm system shall be provided in the bus. The alarm sensor shall set off an Echo backup alarm, located in the operators area if the operator leaves the seat with the emergency brake off. The alarm shall work in all master switch and transmission positions. The system shall permit operators to utilize personal foam or beaded auxiliary seat cushions without triggering a false alarm. The operating state of the seat sensor (operator seated, operator not seated) shall be electronically monitored and reported to the Intelligent Vehicle Network.

TS 6.10.4 FLOOR COVERING

TS 6.10.4.1 VESTIBULE

The floor in the vestibule shall be covered with Altro Transflor Chroma 2.7 slip resistant flooring (color SaturnTFCR-22406) or approved equal. The floor covering shall remain effective in all weather conditions for a minimum of seven years. The floor covering as well as transitions of floor material to the main floor and to the stepwell area, shall be smooth and present no tripping hazards. The standee line shall be white and two inches wide and shall extend across the coach aisle in line with the driver's barrier. The width of this line shall be uniform in width across its entire length. This line shall be white, same color as the edge of the steps. Color shall be consistent throughout the floor covering.

TS 6.10.4.2 DRIVER'S COMPARTMENT

The floor in the driver's compartment shall be easily cleaned and shall be arranged to prevent debris accumulation. Floor covering material, dimensions and color shall match the vestibule area of the bus.

TS 6.10.4.3 PASSENGER AREA

The floor covering in the passenger area shall be the same material, dimensions and color specified for the vestibule. Composition material that remains effective in all weather conditions. The floor covering, as well as transitions of flooring material to the main floor and to the entrance and exit area, shall be smooth and present no tripping hazards. Seams shall be welded per manufacturer’s specifications. Flooring shall be installed to minimize the quantity of seams and a one-piece center strip shall extend from the rear seat between the aisle sides of transverse seats to the standee line. The floor under the seats shall closely fit the sidewall cove or extend to the top of the cover. The floor shall be easily cleaned and shall be arranged to minimize debris accumulation.

TS 6.11 WINDOWS

TS 6.11.1 WINDSHIELD

Windshield shall be two-piece ¼" nominal Solex AS-1 laminated safety float type glass allowing 70 percent light transmittance. Windshield shall be aerodynamically sloped at a minimum of 13 degrees and in the same plan as the roof cap to reduce glare, decrease vehicle drag and increase fuel economy. Windshield halves shall be of the rectangular design. Total clear glass area shall be approximately 31 square feet to allow for maximum driver's visibility.

The windshields shall be designed and installed to minimize external glare as well as reflections from inside the coach. When the coach is operated at night with the passenger interior lighting on, essentially no reflections shall be visible in the windshield immediately forward of the driver's barrier. Reflections in the remainder of the windshield shall be minimized, and no reflection of any part of the coach interior behind the driver's barrier shall be visible in the windshield. An additional exterior mirror mounted to the curbside outside mirror arm shall be provided to provide the forward/front of bus visibility. The windshield shall be easily replaceable by removing zip-locks from the windshield retaining moldings. Bonded-in-place windshields shall not be used. The glazing material shall have single density tint. The upper portion of the windshield above the driver's field of view shall have a dark, shaded band with a minimum luminous transmittance of 6 percent when tested in accordance to ASTM 0-1003.

TS 6.11.2 DRIVER'S SIDE WINDOW

The driver's side window shall open sufficiently to permit the seated driver to adjust the left outside rearview mirror easily. The driver's side window section shall be double glazed, AS-2 laminated safety float fixed, one-piece full vision with black anodized aluminum frame. The lower driver's window shall be divided vertically (50/50) and the forward section shall slide fore and aft in tracks or channels designed to last the service life of the coach. The glazing material shall be nominal ¼ inch laminated, safety glass with single density tint, the same as the windshield. The side window shall be rated AS-2.

The driver's side window shall not be bonded in place and shall be easily replaceable. The glass glazing material, per FMVSS 205, shall have a single density tint with a parallel luminous transmittance of not less than 70 percent and shall be a minimum ¼ inch thick. The driver's side window shall be properly treated to reduce heat and glare on the operator. No horizontal dividers shall be incorporated into the driver's side window. The bottom of the operable section shall be low enough to allow a five foot six inch tall person to operate the door control/valve from outside the bus. The window will have a handle to permit the operator to open the window from outside the bus. Side windows to have protective liner built in to prevent injury to eyes if broken.

TS 6.11.3 SIDE WINDOWS

Windows shall be frameless, 28 percent grey tinted, tempered safety glass with operable transom windows designed to enhance the design of the coach. The window in the wheelchair lift door is smaller. The windows on both sides shall be double glazed laminated safety float glass, one piece fixed and frameless. Side windows shall be a nominal ¼ inch uniform grey tinted glass, allowing approximately 13 percent (13%) light transmittance.

All passenger side windows shall be equipped with protective liners (or BCT approved equal) on the inside of the bus that shall be easily removable in the event of vandalism. This material shall withstand normal cleaning practices. The window protection liner shall protect against intentional defacement, etching, scratches and permanent markers. It shall be removable without the need for special tools. The installation of the liner shall not trap dirt or debris between the liner and window and shall prevent clouding or fogging. The liner must be removable without removing the window from its installed position on the bus and without the removal or manipulation of the window assembly's rubber molding or fasteners. Liner will require BCT approval during the approved equal process.

All sashes shall be emergency escape type and include a single motion release bar running the entire width of the window at the lower edge to permit emergency egress. Windows shall be top hinged with push out at bottom, with the exception of the wheelchair lift door sash. Emergency operating instructions etched on metal plates shall be provided at each seat position for operating the push-out sash.

Windows shall be operable transom type. All threaded window fasteners shall have No-Ox-Id applied to the threads. All glazing materials shall meet current FTA/DOT safety recommendations. The window frame shall be black anodized, not painted frames and all interior windows must have vandal resistant quick replaceable liners.

TS 6.12 INSULATION

TS 6.12.1 MATERIAL

Any insulation material used between the inner and outer panels shall minimize the entry and/or retention of moisture. Insulation properties shall be unimpaired during the service life of the bus. Any insulation material used inside the engine compartment shall not absorb or retain oils or water and shall be designed to prevent casual damage that may occur during maintenance operations.

The combination of inner and outer panels on the sides, roof, wheel wells and ends of the bus, and any material used between these panels, shall provide a thermal insulation sufficient to meet the interior temperature requirements. The bus body shall be thoroughly sealed so that the driver or passengers cannot feel drafts during normal operations with the passenger doors closed.

TS 6.12.1.1 PROPERTIES

The insulating materials may be of differing thicknesses and materials to achieve thermal insulating properties and low interior noise levels. The manufacturer shall meet the sound and HVAC performance requirements of this specification. The following insulation suggestions are listed as recommendations, but not absolute requirements.

• Roof: 2 inch thick, compressed at installation, resin coated, medium density non
bagged fiberglass
• Sidewall: Rigid molded polyurethane foam of varying thickness.
• Driver's area: Minimum %-inch, high-density fiberglass under the floor in the driver's area.
• Stepwell area: 1-inch thick urethane foam insulation with Mylar face to minimize interior temperature variances during severe external climatic conditions and for sound deadening.
• Below windshield: 2-inch thick, high density fiberglass.
• Complete rear lounge seat area shall be heavily insulated with fiberglass blankets and sound-dampened panels for both noise and heat protection as follows:
• Behind the rear cross-seat riser and rear cross seat back and cushion are a minimum total of one percent thick high-density fiberglass blankets.
• An additional 5/8 inch fiberglass blanket is added behind the rear cross seat back to further impede engine noise propagation to coach interior.
• Sound barrier with urethane foam layered on either side of a 1/8 inch urethane elastomer loaded with barium sulfate.
• Cover panel behind rear cross-seat is one-inch thick foamed polyurethane with Mylar facing
• Area behind and below this rear area is 2 inch medium density fiberglass with a thick heavy density fiberglass batt cemented to the inner face of the fiberglass rear window panel.

TS 6.12.1.2 THERMAL INSULATION

The combination of inner and outer panels on the sides, roof, and ends of the coach, and insulating materials shall provide a thermal insulation sufficient to meet the interior temperature requirements. The coach body shall be thoroughly sealed so that drafts cannot be felt by the driver or passengers during normal operations with the passenger doors closed.

TS 6.12.1.3 SOUND INSULATION

The combination of inner and outer panels and any material used between them shall provide sufficient sound insulation so that a sound source with a level of 80 dBA measured at the outside skin of the coach shall have a sound level of 60 dBA or less at any point inside the coach. These conditions shall prevail with all openings, including doors and windows, closed and with the engine and accessories switched off.

The bus generated noise level experienced by a passenger at any seat location in the coach shall not exceed 80 dBA and the driver shall not experience a noise level of more than 70 dBA under the following test conditions. The coach shall be empty except for test personnel, not to exceed four persons, and the test equipment. All openings shall be closed and all accessories shall be operating during the test. The coach shall accelerate at full throttle from a standstill to 35 mph on level commercial asphalt or concrete pavement in an area free of large reflecting surfaces within 50 feet of the coach path. During the test, the ambient noise level in the test area shall be at least 10 dB lower than the coach under test. Instrumentation and other general requirements shall conform to SAE Standard J366. If the noise contains an audible discrete frequency, a penalty of 5 dBA shall be added to the sound level measured.

TS 6.12.1.4 REAR SEAT INSULATION

Special design consideration shall be given to insulation in the area above the engine compartment. Fiberglass or other suitable material shall be applied, together with adequate ventilation, to provide temperatures consistent with the remainder of the coach.

Seat cushions and seat backs shall be suitably insulated to prevent elevated temperature of the seat itself and no cushion or back shall be measurably hotter as compared to any other seat in the coach.

TS 6.13 ANCILLARY FEATURES

TS 6.13.1 DRIVER'S AREA

TS 6.13.1.1 VISORS

Three scissor type sunscreens shall be provided at the right and left hand windshield and at the driver's side window. Guide rods, for roller type sunscreens, shall be located at each end of each screen to allow for infinite positioning. The sunscreens shall be shaped to minimize light leakage between the sunshades and windshield pillars. The sunscreens shall not obstruct air flow from the climate control system or obstruct the operation of other equipment such as the radio handset, Control Head or the destination sign control. Deployment of the sunscreens shall not restrict the vision of the rearview mirrors. Sunscreen adjustments shall be made easily by hand.

TS 6.13.1.2 STOP REQUEST SIGN

A passenger chime signal audible to the driver and to passengers anywhere inside the coach shall be provided. The chime shall be a push button convenient to seated passengers. A driver-controlled switch shall deactivate the chime system. A stop request sign shall be located in the front center of the coach and fastened to the coach ceiling to permit viewing by all passengers. The spotter display sign specified in Section 6.13.4.3 shall perform the function of the stop request sign. The sign shall be illuminated

when the passenger chime sounds and go off when the entrance door is opened. The passenger chime shall sound once when the sign's light comes on but will not sound again until after the system has been reset by the opening of the entrance door. A switch shall be provided in the driver's area to function as the passenger chime circuit on/off.

TS 6.13.1.3 DRIVERS STORAGE

A double prong hook shall be provided for the drivers' coat in the driver's area with a retention strap. A locker with a keyed lock to match the entrance door shall be provided driver storage box. The lock key code shall be established during pre-production.

TS 6.13.2 MIRRORS

TS 6.13.2.1 OUTSIDE MIRRORS

The coach shall be equipped with corrosion resistant, remote controlled outside rear view mirrors, on each side of the coach. The mirrors shall be mounted so as to permit the driver to view the highway along both sides of the coach, including the rear wheels. Mirrors shall be firmly attached to the coach to prevent vibration and loss of adjustment, but not so firmly attached that the coach or its' structure is damaged when the mirror is struck in an accident. Outboard maximum overall mirror width dimension shall not exceed 122 inches while providing maximum visibility to the operator.

The street side mirror shall be a corrosion- resistant, remote outside rear view mirror, adjustable from the driver's seat. Mirrors shall be split view flat and convex glass integrated in the same housing, overall measurement 10 by 13 inches. Mirrors shall permit operator view of road surface as well as the rear wheels. Connections on mirror harness shall be all weather connectors. Mirror head shall be attached to arm with ball/collet adjustment, for positive head location. Mirror arm shall be made to breakaway if struck in an accident or to eliminate damage in bus wash. Mirror shall fold flat against the coach sides for coach washing operations. Mirror arm shall be hollow aluminum for concealing wire.

The curbside mirror shall be a corrosion-resistant, remote outside rear view mirror, adjustable from the driver's seat. Mirrors shall be integral flat and convex with overall measurements of 10 by 13 inches and permit driver view of roadway as well as coach rear wheels. Mirror head shall be spring loaded to break away, should impact occur. Mirror arm shall be made to breakaway if struck in an accident or to eliminate damage in bus wash. Mirror arm shall be hollow aluminum for concealing wire. Mirror arms shall have a detent to allow for easy re-set of the mirror after cleaning. A mechanical stop shall be provided which prevents contact between the mirror arm and the entrance door. Mirror arm shall also have a five inch convex spot mounted on it to provide a clear view of the front of the coach.

The mirror switch shall control both mirrors and be provided with pigtail connectors to interface with the wiring harnesses of both remote mirrors. The switch shall be installed in a location that is within easy reach of the operator.

TS 6.13.2.2 INSIDE MIRRORS

A mirror shall be provided for the operator to observe passengers throughout the coach without leaving his seat and without shoulder movement. With a full standee-load, including standees in the vestibule, the operator shall be able to observe passengers in the rear of the coach and anywhere in the aisle. Inside mirror shall be fully adjustable 6 x 10.5 inch mounted just below the destination sign box and above the driver's line of sight.

TS 6.13.3 PASSENGER ASSISTS

TS 6.13.3.1 GENERAL REQUIREMENTS

Passenger assists in the form of full grip, vertical stanchions or handholds shall be provided for the safety of standees and for ingress/egress. Passenger assists shall be convenient in location, shape, and size for both the 95th-percentile male and the 5th-percentile female standee. Handholds shall be mounted on top of all the aisle seats in compliance with the continuous overhead assists requirement. Starting from the entrance door and moving anywhere in the coach, a horizontal assist shall be provided at the aisle side of the coach that runs the full length of the coach so that a 5th-percentile female passenger may easily move the length of the aisle using one hand and then the other without losing support. Excluding those mounted on the seats and doors, the assists shall be between 1.25 and 1.50 inches in diameter or width with radii no less than 0.25 inches. All passenger assists shall permit full hand grip with no less than 1.50 inches of knuckle clearance around the assist. The passenger assists on the door torque tubes, the passenger modesty panel, the dash, fare collection register grab rail and the operators barrier shall be stainless steel.

TS 6.13.3.2 FRONT DOORWAY

Front doors, or the entry area, shall be fitted with assists no less than 3/4 inch in width. Assists shall be as far outward as practicable, but shall be no further than six inches from the outside edge of lower step tread and shall be easily grasped by a 5th-percentile female boarding from street level. Door assists shall be functionally continuous with the horizontal front passenger assist and the vertical assist on the front modesty panel.

TS 6.13.3.3 VESTIBULE

The aisle of the driver's barrier panel shall be fitted with vertical passenger assists that are functionally continuous with the overhead assists that extend to within 36 inches of the floor. These assists shall have sufficient clearance from the barrier to prevent inadvertent wedging of a passenger's arm and shall be in complete compliance with ADA requirements. A horizontal passenger assist shall be located in the front of the coach adjacent to the driver's area. The horizontal passenger assist maximum will be no more than 35 inches. The assists at the front of the coach shall be arranged to permit a 5th percentile female passenger to easily reach from the front door assist to the horizontal assist, then to the vertical assist.

TS 6.13.4 PASSENGER INFORMATION SYSTEMS

TS 6.13.4.1 DESTINATION SIGNS

A Silver Series LED destination sign system shall be furnished on the front, rear, and on the curb side near the front door. The sign located near the front door shall not block the driver’s critical horizontal line of sight. Display areas of destination signs shall be clearly visible in direct sunlight and/or at night. Parts shall be commercially available.

All signs shall be controlled via a single human-machine interface (HMI). In the absence of a single mobile data terminal (MDT), the HMI shall be conveniently located for the bus driver within reach of the seated driver.

All bus signs will also interface with the CAD AVL System utilizing one of the existing interface points on the SPM 5000 System Controller.

The sign system shall have multi-level intensity changes, which adjust automatically as a function of ambient lighting conditions.

The destination sign compartments shall meet the following minimum requirements:

- Compartments shall be designed to prevent condensation and entry of moisture and dirt.
- Compartments shall be designed to prevent fogging of both compartment window and glazing on unit itself.
- Access shall be provided to allow cleaning of inside compartment window and unit glazing.
- Front window shall have an exterior display area of no less than 8.5 inches high by 56 inches wide.

A silver series, automatic electronic Passenger Information Display Sign System shall be furnished and installed in the Bus. The System shall consist of:

DISPLAY SIGNS:

- Front Sign:
  16 rows x 160 columns Sterling LED; display height minimum 7.9 inches, display width 63 inches.

- SIDE SIGN:
  14 rows x 108 columns Sterling LED; display height minimum 4.2 inches, display width 42 inches.

- Rear Sign:
  16 rows x 48 columns Amber LED; display height minimum 6.1 inches, display width 17 inches.

- Operators Control Unit (OCU) with integral USB port

- Cables and Accessories

The Front Sign shall be mounted on the front of the Bus, near the top edge of the body, behind windshield protection, and in an enclosed but accessible compartment provided by the Bus manufacturer.

The Side Sign shall be located on the right side of the Bus near the front door either mounted near the top of an existing window or in a separate enclosed but accessible weather-proof compartment provided by the Bus manufacturer.

The Rear Sign (external) shall be mounted on vendor supplied brackets on the rear of the vehicle on an appropriate sized cutout provided by the Bus Manufacturer.

The entire display area of all signs shall be readable in direct sunlight, at night, and in all lighting conditions between those two lighting extremes, with evenly distributed illumination appearance to the un-aided eye.

The system shall be microprocessor-based utilizing approved bi-directional serial communications such as S.A.E 1708 and shall utilize error detection techniques within the communication protocol. Communication within and between the sign elements shall be over an RS485 interface.

A Master Controller Board shall be mounted in the front sign. Independent Sign Driver Boards shall be mounted in the front and side destination sign. The Master Controller Board and the Sign Driver Boards shall be capable of accepting updated firmware levels via direct programming using a USB key and loaded through the USB port located on the OCU. Each sign circuit must be fused at the Master Control Panel with a visual indicator showing communication and power status. The Master Controller Board shall be capable of sending discrete outputs indicating system health to an onboard AVM system. The system shall be capable of communicating with additional information devices, such as

interior information signs, Voice Annunciation devices, Farebox, etc. The system shall provide for destination and/or Public Relations (P/R) message entry.

Flash memory integrated circuits shall be capable of storing and displaying up to 10,000 message lines. Message memory shall be changeable primarily through the AVL system with a secondary system using a "USB Key" sized according to the message listing noted herein. Download via a PCMCIA card or Memory Transfer Unit will not be accepted.

The System shall have the ability to sequentially display multi-line destination messages, with the route number portion remaining in a constant "on" mode at all times, if so programmed. It shall also be capable of accepting manual entry of Route Alpha/Numeric information on any/all signs.

The various Signs shall be programmable to display independent messages or the same messages; up to two destination messages and one public relations message shall be pre-selectable. The operator shall be able to quickly change between the pre-selected messages without re-entering a message code. Public relations messages shall be capable of being displayed alternately with the regular text and route messages or displayed separately.

An emergency message shall be activated by a push button or toggle switch (OEM provided) in a location to be approved by BCT. The emergency message shall be displayed on signs facing outside the vehicle while signs inside the vehicle, including the OCU display, remain unchanged. The emergency message shall be canceled by entering a new destination code, or power cycling (after removal of the emergency signal). The status of the Emergency Message circuit shall be indicated by a light located on the front sign Master Control Panel.

The programming software shall provide means of adjusting the length of time messages are displayed in 0.1 second increments up to 25 seconds.

Power to the Sign system shall be controlled by the Master Coach Run Switch. The signs shall operate in all positions of this switch except off. The signs shall internally be protected against voltage transients and RFI interference to ensure proper operation in the local environment.

DISPLAY & DISPLAY ILLUMINATION:

The Front and Side sign displays shall consist of pixels utilizing High Intensity Light Emitting Diodes ("LED"), for superior outdoor environmental performance. LED's shall be of the Sterling variety falling within the typical chromaticity coordinate area of 0.31 & 0.32 in the X & Y axis respectively. The LED should be made of InGaN, superior UV resistant Epoxy lens and superior resistance to the effects of moisture.

The Rear sign display shall consist of pixels utilizing High Intensity Light Emitting Diodes ("LED"), for superior outdoor environmental performance, (of Amber illumination appearance of light wavelength of 590 NM). LED should be made of AlInGaP II, superior UV resistant Epoxy lens and superior resistance to the effects of moisture.

Each pixel shall have a dedicated LED for illumination of that pixel in all lighting conditions. The sign system shall have multi-level intensity changes, which adjust automatically as a function of ambient lighting conditions. There shall be no requirement for any fan or any specialized cooling or air circulation.

This LED shall be mounted such as to be visible directly to the observer positioned in the viewing cone, allowing for full readability 65 degrees either side of the destination sign centerline. The LEDs shall be the only means of illumination of the sign system. The LED illumination source shall have an operating life M.T.B.F. of not less than 100,000 hours. Each LED shall not consume more than 0.02 Watts.

The characters formed by the System shall meet the requirements of the Americans with Disabilities Act (ADA) of 1990 Reference 49 CFR Section 38.39.

SIGN ENCLOSURES:

All Signs shall be enclosed in a manner such as to inhibit entry of dirt, dust, water and other contaminants during normal operation or cleaning. Access shall be provided to clean the inside of the Bus window(s) associated with the Sign and to remove or replace the Sign components. Access panels and display boards shall be mounted for ease of maintenance/replacement. Any exterior Rear Sign enclosure used shall be made of Polycarbonate material containing fiberglass reinforcement. The vehicle manufacturer shall comply with the Sign manufacturer's recommended mounting, mounting configuration, and installation procedures to assure optimum visibility and service accessibility of the Sign System and System components.

ELECTRONIC SYSTEM REQUIREMENTS:

All electronic circuit boards used in the Sign System shall be conformal coated to meet the requirements of military specification MIL-I-46058C. All Sign System light board components shall be certified to have been subjected to a "burn-in" test of a minimum of 12 hours operation in a temperature of 140°F prior to final inspection.

FRONT SIGN:

The Front Sign message shall be readable by a person with 20/20 vision from a distance not less than 350 feet for signs of display height greater than eight inches and from a distance not less than 275 feet for display heights less than eight inches. The Front Sign shall have a viewing cone of equal readability at 65 degrees on either side of a line perpendicular to the center of the mean plane of the display. The intensity of the illumination of the display pixels shall appear, to the naked eye, to be approximately uniform throughout the full viewing cone. Destination sign glass shall be ¼ inch Safety Glass and will require approval during the pre-production process.

SIDE SIGN:

The Side Sign message shall be readable by a person with 20/20 vision, from a distance of not less than 110 feet. The Side Sign shall have a viewing cone of equal readability at 65 degrees on either side of a line perpendicular to the center of the mean plane of the display. The intensity of the illumination of the display pixels shall appear, to the naked eye, to be approximately uniform throughout the full viewing cone.

REAR DESTINATION SIGN:

The Rear Sign shall be capable of independently displaying alpha-numeric characters. Its message shall be readable by a person with 20/20 vision, from a distance of not less than 225 feet. The Rear Sign shall have a viewing cone of equal readability at 65 degrees on either side of a line perpendicular to the center of the mean plane of the display. The intensity of the illumination of the display pixels shall appear, to the naked eye, to be approximately uniform throughout the full viewing cone. Rear destination sign glass shall be ¼ inch Safety Glass and will require approval during the pre-production process.

OPERATOR CONTROL UNIT (OCU):

A “Slim line” OCU Unit (Part number 906-2100-000 or approved equal) shall be used to view and update display messages. It shall be capable to be recess mounted on the Bus vehicle front Sign

compartment access cover or in the driver's dash area. The OCU shall utilize a multi-key conductive rubber pad keyboard and be designed for transit operating conditions and a maximum depth of 1.25 inches.

The OCU Unit shall contain a display of at least two-lines of 20-character capability. The OCU Unit shall contain an audio annunciator that beeps indicating that a key is depressed. The OCU Unit shall continuously display the message associated with the selected destination readings (except the emergency message feature as noted above).

The OCU shall also contain the capability to manually select the Block Number Sign information (from one to four Alpha-Numeric characters) to be sent to the Block Number sign, independent of any pre-programmed destination sign message information.

The OCU shall contain a USB port which will accept the destination data upload programmed by the software package below.

The OCU shall be expected to interface with BCT AVL system via the SPM5000 Controller.

PROGRAMMING:

A WINDOWS® 7 or higher programming software package shall be supplied, under limited- use license, to generate message lists for the Sign system.

The programming software package shall use the capacity of a Pentium PC processor having no less than 2G to allow the USB to be programmed directly from the PC.

The program shall be designed for ease of deleting and adding messages to a destination Sign list in a WINDOWS® 7 or higher Operating Environment.

The Programming Software shall be intuitive, of design to facilitate ease of training, and use context-sensitive help features. Reasonable on-site training support shall be provided with the software.

This software will provide capability for custom message writing by selection of preprogrammed standard variable width fonts. This allows for creation of a custom font by varying spacing between characters, words, or other message elements. This software also allows for creation of graphic displays with or without text; by selecting preprogrammed graphic Sign images and by allowing use of multiple fonts within the same message and graphic symbols placed anywhere within the display area.

MESSAGE MEMORY TRANSFER AND UPDATE:

The Sign system shall be reprogrammable on the Bus via AVL with the secondary use of a USB Key. A key slot shall be provided on the OCU face for this purpose. The maximum reprogramming time for a 10,000 line listing shall be 30 seconds.

CABLES:

The bus harness shall be of a point-to-point configuration between destination signs and shall be of a highly visible yellow color to enable quick and positive identification

TS 6.13.4.2 RUN NUMBERS

An LED 4 character run number sign, electronically controlled by the destination sign controller shall be provided. The sign 'shall be mounted with a built-in appearance to eliminate glare and reflections in the windshield and shall minimize obstruction of the operator's view and shall not be obstructed by

windshield tinting. The run number shall be communicated from the destination sign system to the run number box. Illumination of the sign shall be individually controlled through direct entry from the operator's display keypad of the destination sign. Each character location shall be capable of displaying the numbers 0 through 9, a blank, and the letter X. The ODK Data Link function described above shall enable the run sign to be controlled from an external source.

TS 6.13.5 FARE COLLECTION

Space and structural provisions shall be made for installation of an electronic validating fare collection device with fully operable smart card reader and trim option and shall be as far forward as practicable. Location of the fare collection device shall not restrict traffic in the vestibule, including wheelchairs if a front door loading device is used, and shall allow the driver to easily reach the Farebox controls and to view the fare register. The fare box shall not restrict access to the driver area, shall not restrict operation of driver controls and shall not — either by itself or in combination with stanchions, transfer mounting, cutting and punching equipment, or route destination signs — restrict the driver's field of view per SAE Recommended Practice J1050. The location and mounting of the fare collection device shall allow use, without restriction, by passengers. The fare box location shall permit accessibility to the vault for easy manual removal or attachment of suction devices. Meters and counters on the fare box shall be readable on a daily basis. The floor under the fare box shall be reinforced as necessary to provide a sturdy mounting platform and to prevent shaking of the fare box.

A separate 10-amp, 12-volt, DC, protected circuit, filtered to eliminate damaging power spikes, shall be available to power the Farebox. The conductor shall be a multi stranded 12 gauge copper wire. This power service shall include a grounded lead with both wires enclosed in a flexible conduit. When run switch is in "off" position, power to Farebox will shut down thirty minutes later. The Farebox shall be supplied by the bus manufacturer with latest software programming to insure BCT is operating with the latest software available.

The farebox shall be reliable in revenue service operations, accurate in its counting and data reporting, and secure in its retaining and transfer of data collected revenue. Processing of cash and non-cash fares shall be fully automatic, not requiring the driver to view any portion of the passenger's fare deposit. The farebox shall be able to operate without any degradation in performance when subjected to the environmental, and power supply conditions typically found on a transit bus and manufactured to provide a high degree of security against forced entry and/or unauthorized manipulation.

The farebox shall provide specific information regarding daily operation, including revenue collected, types and quantities of fares collected, driver/route identification, and other information needed to account for revenue, ridership, and to monitor the equipment. The farebox must be fully compatible, or modified to be fully compatible with the existing fare collection system including data and revenue interfaces.

Required Features: The farebox shall have the following operational features:

(a) Accept, validate, count, and register fares in the form of U.S. coins, tokens, and paper currency;
(b) Return those coins and bills which are not valid or acceptable to the system;
(c) Accept, validate and, if necessary, re-encode suitably encoded magnetic thin card fare documents;
(d) Accept and process contactless smart cards (plastic and limited use paper);
(e) Print, encode and issue a paper based, machine readable transfer from an internal supply of blank and un-encoded magnetic striped paper transfers;
(f) Provide change for fare overpayment;
(g) Permit the selected recharge of a stored value farecard;
(h) Permit the recording of various types of fare transactions automatically and through using driver activated pushbuttons.
(i) Accept and process fare payments using cell phones/bar codes.
(j) Capable of adding value to smart cards using an on-line smart card re-loading system.

(k) Permit the downloading and uploading of data with the Garage Data System through both wired and wireless probing systems.

The farebox shall ship loose to be installed near the driver and in proximity to the front door by BCT. It shall be positioned so that an entering passenger may easily insert the required fare into the farebox using coins, tokens, paper currency, magnetic fare document, smart phone and/or contactless smart card. This position shall also facilitate all required maintenance tasks and permit easy removal of the cashbox.

The farebox shall be provided with an Operator Control Unit (OCU) to be located and mounted on the front dashboard of the bus or alternately affixed to the farebox by BCT. It shall be separate from the farebox, but electrically connected and permit the monitoring of transactions in progress, view the total of fare inserted by coins and bills and view various operational messages. The driver control unit shall be provided with suitable controls and displays to permit the driver to operate the farebox without having to view or touch the farebox.

Operating Environment

The farebox shall be able to operate without any degradation in performance when subjected to the environmental, and power supply conditions typically found on a transit bus.

Coin and Token Processing

The coin validator shall determine the validity of inserted coins based on their diameter and metallic content and shall be capable of distinguishing between 12 different valid coins/tokens. Only coins that are designated to be accepted and that meet specific characteristics will be accepted, others will be rejected. The validator shall use a gravity fed method with no mechanical devices to separate or accept coins. The farebox will also have a coin bypass device to allow the farebox to remain in service should a fault occur.

Currency Processing Module

The farebox shall be provided with a currency processing module that is capable of accepting, validating, and counting paper currency of $1, $5, $10, and $20 denominations. The acceptor shall have indicator lights and shall show, by a green light that the acceptor is ready to accept bills or alternately, by means of a red light, that it is not ready or able to accept bills. The acceptor shall accept an inserted bill in any one of four orientations: - face up, face down, either end first.

Cash Counting Accuracy

The total amount of money registered by each farebox in the form of coins and bills shall not vary from the actual amount by more than +/- 1% (plus-or-minus one percent) for amounts greater than $300.

Document Encoding/Printing Unit

The farebox shall be provided with an integral Magnetic Card Processing Unit MCPU) capable of processing (read, encode, verify print and issue as required) a magnetically striped and thermally coated die-cut documents such as period/rolling period passes, stored ride/value cards, transfers, Day Passes, etc. Magnetic fare documents inserted shall be accepted and read on first proper insertion at a rate of not less than 99.5 percent, assuming each document is valid and the document is not damaged sufficiently to destroy the ability of the reader to correctly read the encoded data.

Magnetic Swipe Card Reader

The farebox shall be provided with a swipe card reader to process read-only magnetic documents such as passes which have been previously encoded with data such as serial number, card type, validity dates,

etc. The card reader shall be integral to and flush with the top surface of the farebox near the coin and currency slots. Magnetic fare documents swiped through the card reader shall be successfully accepted and read on first proper insertion at a rate of not less than 99 percent, assuming each document is valid and the document is not damaged so as to destroy the ability of the reader to correctly read the encoded data.

Contactless Smart Card Processor

The farebox shall be provided with a device capable of processing a contactless smart card placed within approximately two inches of a designated location ("target") on the farebox near the coin and bill insertion slots. The smart card shall be configurable for use as a period pass, stored value, or stored ride card. Smart Card fare documents properly presented to the card reader shall be successfully accepted and read at a rate of not less than 99 percent, assuming each document is valid and the document is not damaged so as to destroy the ability of the reader to correctly read the encoded data.

Bar Code Reader

The farebox shall be provided with a device capable of processing a one-dimensional and a Quick Response (QR) matrix, two-dimensional bar code for fare payments. The card shall be configurable for use as a period pass, stored value, or stored ride card. Bar code passes may be obtained from ticket offices or purchased through a cell phone “app” and displayed on a smart phone display. The Bar Code reader verification rate shall be not less than 95 percent. This assumes each bar code product is valid and not damaged sufficiently to destroy the ability of the reader to correctly read the encoded data.

Passenger Indications

The farebox shall be provided with a passenger display mounted on top of the farebox in proximity to the coin and bill slots. The display shall be a backlit color display and shall be easily viewable by a passenger paying a fare. The farebox shall be equipped with an audio transducer which shall be used to emit different sounding tones and voice messages to indicate that a fare has been paid with proper documents or media. Distinctively different tones shall be used to indicate an invalid document was used.

Cashbox

The cashbox shall be rectangular to fit within the cashbox compartment in the lower portion of the farebox. The cashbox shall have two separate compartments, one for coins/tokens and one for bills. The cashbox shall have an interior volume of not less than 580 cubic inches and shall be capable of holding approximately $500 in mixed coins and a minimum of 400 items of U.S. paper currency in unfolded "street" condition.

Wired and Wireless Probing

The farebox must have the ability to transfer and receive data from the Data System computer via both a wired and a wireless communication system.

TS 6.13.6 LIFT

A dedicated access extended travel lift and two forward facing mobility device securement areas to accommodate a maximum 30 inches (762 mm) wide mobility device shall be provided. The lift assembly shall comply with all current ADA requirements and FMVSS 403 and 404. The lift shall be installed below the floor line at the #2 right-hand luggage bay on the curbside of the coach.

The lift shall be controlled by a dash mounted toggle switch and a rear lift area toggle switch, and operated by up/down switches pendant mounted to the lift support bracket inside the #2 baggage bay.

The wheelchair loading system shall provide safe, comfortable and rapid ingress and egress for applicable passengers from the street level or a curb. When not in use, the lift shall stow in the luggage bay. The lift mechanism shall include a device to provide "passenger on platform" information and prevent stowing the lift platform when a passenger is sensed. The outer barrier shall be automatically controlled and shall be such that it cannot be overridden by the loading system operator. A dash mounted indicator light shall be provided and shall be illuminated when the loading system is activated. The interlock shall apply, the bus shall not move and the engine throttle shall be disabled whenever the wheelchair loading system is activated. If the lift door is open or ajar, the interlock shall remain engaged. Brackets, clamps, screw heads and other fasteners used on the passenger assists shall be anodized aluminum or stainless steel and shall be flush with the surface and free of rough edges.

The lift control mounted on the lift structure shall have push button up/down switches. The toggle electrical supply switch shall be located in close proximity to the controller. This toggle switch must be turned "ON" prior to the lift operation. All lift control switches shall be permanently labeled. Decals shall not be permitted. The stow guard switch shall be red in color and the stow/deploy switch shall be black in color. These switches shall be incorporated in a hand held pendant.

The lift shall include the following specifications:

Lifting capacity (main platform) 660 pounds
Vertical travel 55 inch (1,422 mm) maximum
Platform width (chair capacity) 30 inch (762 mm) minimum
Platform depth (chair capacity) .48 inch (1,219.2 mm) minimum
Platform side height four inch (101 mm)
Handrail height - two 30-inch (762 mm) minimum
Stowed dimension (depth) 85.5 inch (2171.7mm) total
Operating controls ' Dual pushbutton
Power source , Electro- hydraulic
Voltage 24 volts DC
Backup system Emergency hand pump
Construction Steel and aluminum
Stow level to ground cycle time 21.0 seconds
Ground to floor level cycle time 14.0 seconds
Hydraulic system fluid capacity 1.4 quarts
Hydraulic system operating pressure 2000 psi minimum
The lift shall be designed to meet the Title 13 California Highway Patrol requirements and Federal Department of Transportation Regulations 49 CFR 38.

The lift shall include a hinged platform to bridge the coach floor to the lift platform. Bridge shall be hinged and locked in an upward position to act as a barrier when the lift is in use. Bridge shall also allow the lift passenger to ingress/egress easily from the platform. Lift travel speeds and lift operation shall be adjusted to the lift manufacturer's specifications upon completion of the lift installation into each coach and before coach delivery. The individual handrails shall incorporate a visual aid to insure that they are folded in the proper order. The lift shall include an emergency system in case of driver operation malfunction. Should an emergency situation occur, the lift operator shall release the pushbutton switch on the controller to immediately stop the lift operation. Loss of electrical power shall also stop the lift operation regardless of switch position. An emergency auxiliary hydraulic hand pump shall be used to complete the lift cycle. The emergency hand pump handles and pump shall be located in an enclosed box at the rear wall of the #1 right-hand baggage bay to prevent the accumulation of dust and dirt. The pump shall be easily accessible through the baggage bay door. The handle shall be stored adjacent to the pump to allow immediate usage.

Lift operating state (activated, deployed, stowed, in transit up, in transit down, deactivated) shall be monitored and reported to the Intelligent Vehicle Network.

TS 6.13.6.1 LIFT DOOR

A power assisted, sliding wheelchair lift door shall be provided. The lift door shall be a single leaf design that operates in a sliding track mounted above the door leaf. The door shall open by sliding to the rear of the coach and shall remain on a horizontal plane throughout the opening and closing process. No pin hinged doors shall be provided. The transmission must be in neutral and the parking brake activated for the lift to operate. The accelerator shall be automatically disabled and the fast idle system activated when either the lift master switch (toggle switch w/red cover) is turned "On" or the lift door is open, for maximum safety. These features shall be wired to the lift master switch to allow activation only when the transmission is in neutral. The coach directional (Hazard) lights will also flash on/off. After the lift operation is completed, the lift shall be properly stored and secured, with the access door closed and the lift master switch at the dash in the "OFF" position in order to move the coach.

The lift door shall have a window in line with the other passenger windows and shall not detract from the appearance of the coach. The door latch mechanism shall be located in the lower section of the door so that operators in the 5th percentile female range can operate the lift door. A keyed lock shall not be provided. The lift storage door shall not block the visual observation of the lift assembly while utilizing the manual override mode of the lift. The lift storage door shall be a vertically hinged door with the hinge side of the door facing the front of the coach.

TS 6.13.6.2 LIFT INSTALLATION

The installation of the lift to the coach structure as well as the installation of the lift door into the sidewall of the coach shall not affect the structural integrity of the coach. The heating and air ducts shall be rerouted around the lift area to ensure proper interior air conditioning/heating airflow and distribution.

A passenger chime tape switch shall be mounted on the sidewall at the two wheelchair securement positions. Each coach shall have adequate information decals installed which details the proper lift operation in both the normal and manual modes of operation.

TS 6.13.6.3 LIGHTING REQUIREMENTS

Lighting for the lift areas shall be designed to exceed Title 13, ADA and FMVSS 404 standards. Lighting shall be provided to effectively illuminate the lift area. Light shall be wired through the keyed master switch on the driver's dash and shall automatically illuminate when this switch is in the "ON" position. The lighting design shall minimize the effect of glare on passengers entering the bus through the wheelchair lift door. During lift operation, the street surface shall be illuminated to a minimum of six candlepower a distance of three feet beyond the external dimensions of the lift platform once deployed and lowered. Additional lighting shall be provided to insure illumination of the instruction placard and the manual override pump when it is in use.

TS 6.13.6.4 SECUREMENT SYSTEM

The vehicle interior shall permit the securement of two forward facing wheelchair passengers in which the primary position shall be on the street side of coach directly across from lift. These spaces may have fold-up seats to accommodate other passengers when a wheelchair or mobility aid is not occupying the area. The stop request control shall be no higher than four feet and no lower than 15 inches above the floor in this area and shall require a force, of no more than five pounds to activate. The stop request shall be of the slap pad design and mounted in a location to prevent accidental activation by passengers. Maneuvering room inside the bus shall accommodate easy travel for a passenger in a wheelchair from the loading device through the bus to the designated parking area and

back out. No portion of the wheelchair or its occupant shall protrude into the normal aisle of the bus when parked in the designated parking space(s). The successful bidder shall demonstrate that the entryway, aisle and all turning areas will accommodate a sled pulled through the areas that is manufactured to the largest ADA dimensions.

Accommodations shall include a stand-alone three-point securement system that eliminates aisle side tripping hazards and unnecessary equipment on the floor.

The three-point wheelchair securement system shall be of Transit J-hook attachment design or approved equal, under seat stabilizing bumper, and integrated scooter ring. Securement retractors shall be self-tensioning and self-locking with an integrated front tensioning handle to secure and stabilize the wheelchair. Stabilizing bumper will have a forward protrusion from under the seat as to act as the fourth wheelchair contact point. It shall have an integrated, self-contained rear barrier, containing two rear securement retractors with cable adjusters, occupant restraints, including the integrated, pre-positioned shoulder belt and paddle handle delay system allowing free operation of rear retractors. Paddle handle will include a 15 second audible and visual alarm. A stowage button on the flip seat and rear barrier for easy access to the lap belt and stowage of the shoulder belt. Signage at each location under seat shall be visible to user and explain securement operation.

The system shall allow for safely securing a wide range of wheelchairs and scooters. There shall be a front tensioning mechanism for securement of the three-wheel scooters. A shoulder belt shall be integrated into the securement device eliminating the need for window brackets.

The support for the securement device shall have an access panel for easy access to internal components.

A separate three-point belt securement shall be provided to effective secure the occupant. To further secure the passenger during the lift operation, a retractable seat belt strap shall be provided at the ingress/egress area of the lift platform. A minimum 10.5 inches (267mm) high barrier shall also be provided at the rear of lift area for additional passenger protection.

TS 6.14 ROOF VENTILATORS/ESCAPE HATCH

Two roof ventilators shall be provided and designed to perform as an escape hatch. One ventilator/escape hatch shall be located in the roof at the front of the coach, another in the roof at the rear of the coach.

TS 7.0 CHASSIS

TS 7.1 PROPULSION SYSTEM

TS 7.1.1 VEHICLE PERFORMANCE

TS 7.1.1.1 POWER REQUIREMENTS

The propulsion system and drive train shall provide power to enable the coach to meet the defined acceleration, top speed, and gradability requirements. Sufficient excess power shall be available to operate all accessories without jeopardizing coach performance or safety.

TS 7.1.1.2 TOP SPEED

The coach shall be capable of reaching a governed speed of 70 mph, for emergency and passing maneuvers, on a straight, level road at SLW.

TS 7.1.1.3 GRADABILITY

Gradability requirements shall be met on grades with a surface friction coefficient of 0.3 and above at SLW with all accessories operating. The standard configuration power plant shall enable the coach to maintain a speed of 44 mph on a 2-percent grade and seven mph on a 16-percent grade.

TS 7.1.1.4 ACCELERATION

Vehicle shall accelerate from 0 to 15 mph in five seconds, with the coach at S.L.W.

TS 7.1.1.5 JERK

Jerk, the rate of change of acceleration, shall be minimized throughout the acceleration deceleration range and shall be no greater than *0.3g/sec.* under normal operating conditions and normal driver actions.

TS 7.1.1.6 OPERATING RANGE

The operating range of the coach run on the design operating profile shall be at least 750 miles on a single fill-up of fuel.

TS 7.1.1.7 OPERATING PERFORMANCE

Speed, gradability, and acceleration performance requirements shall be met at, or corrected to, 85°F., 29.00 inches Hg, dry air. Performance degradation at conditions other than the test standard shall not exceed one percent for each 3°F and four percent for 1,000 feet of altitude above the standard.

TS 7.1.2 POWERPLANT MOUNTING AND ACCESSORIES

TS 7.1.2.1 MOUNTING

All power plant mounting shall be mechanically isolated to minimize transfer of vibration to the body structure and provide a minimum clearance of 0.75 inches. Mounts shall control the movement of the power plant so as not to affect performance of belt-driven accessories or cause strain in piping and wiring connections to the power plant.

TS 7.1.2.2 SERVICE

The powerplant shall be arranged so that accessibility for all routine maintenance is assured. No special tools, other than dollies and hoists shall be required to remove the powerplant. Two mechanics shall be able to remove, replace and prepare the engine and transmission assembly for service in less than 25 total combined man-hours. The muffler, exhaust system, air cleaner, air compressor, starter, turbocharger, alternator, radiator, including charge air circuit, all accessories, and any other components requiring service or replacement shall be installed in or above the engine compartment.

Gauge(s) shall be installed in the engine compartment which indicate engine oil pressure and engine coolant temperature. These gauges shall be easily read during service and shall be mounted in an area where they shall not be damaged during minor or major repairs.

The turbocharger, alternator, air compressor, and starter shall be replaceable without dismounting or removing other coach parts and without gaining access through the coach interior.

The cooling system filler caps shall be hinged to the filler neck and be held closed with spring pressure or positive locks. The transmission filler tube shall employ a combination dipstick and cap and shall be the minimum length permissible to discourage daily fluid checking. All fluid fill locations shall be properly labeled to help ensure correct fluid is added and all shall be easily accessible with standard funnels, pour spouts, and automatic dispensing equipment.

All lubricant sumps shall be fitted with magnetic-type, external, hex head, drain plugs of a standard size except for the transmission which uses a recessed square socket type plug.

The powerplant shall be equipped with provisions for displaying engine and transmission data on an external reader or laptop computer.

The engine and transmission shall be equipped with sufficient heavy-duty fluid filters for efficient operation and to protect the engine and transmission between scheduled filter changes. To the extent practicable, the filters shall be of the spin-on, disposable type. All filters shall be easily accessible and the filter bases shall be plumbed in a manner so as to assure correct reinstallation. Flexible lines shall be Teflon hoses with braided stainless steel jackets except in applications where premium hoses are required and shall have standard SAE or JIC brass or steel, reusable, swivel end fittings. Hoses shall be individually supported and shall not touch one another or any part of the coach.

All fluid lines on the exhaust side and turbocharger side of the engine shall have heat resistant secondary containment jackets to control spraying of fluids onto exhaust system and turbocharger.

TS 7.1.2.3 **AIR CLEANER**

The air cleaner shall be a dry type, be horizontally mounted, and be equipped with a pre-cleaner system. Airflow through the filter element shall be from the outside in. To service the filter shall take less than five minutes, disconnecting an engine air intake duct, air compressor intake duct, or filter housing shall not be necessary. The access cover of the air filter assembly shall be retained to the filter housing with a single wing nut or quick release clamps

A Filter Minder or Donaldson "Informer" air filter service indicator shall be provided and calibrated to 20 inches of water/vacuum.

TS 7.1.2.4 ACCESSORIES

These accessories shall be unit mounted for quick removal and repair. These accessories shall be driven at speeds sufficient to assure adequate system performance during extended periods of operation. The power steering pump and air compressor shall be flange mounted and gear driven from engine. The power steering reservoir shall be remotely mounted to the bus chassis and shall not be mounted on the drivetrain. (A larger power steering reservoir than the basic commuter coach shall be provided.) The alternator shall be an EMP Power 450 amp brushless. Only the 24 volt alternator and AIC compressor may employ belt drives.

Tension on the belt driven compressor shall be maintained by manually adjusted turnbuckles or automatic belt tensioner. The alternator shall be automatically tensioned.

TS 7.1.2.5 HYDRAULIC DRIVE

Hydraulic system shall be used for power assisted steering. Service tasks shall be minimized and scheduled not more frequently than scheduled tasks for other major coach systems. All elements of the hydraulic system shall be easily accessible for service or unit replacement. All lines shall be compatible with the hydraulic fluid and maximum pressures of the system. Flexible lines shall be minimized in quantity and length. Lines of the same size and with the same fittings as those on other piping systems of the coach, but not interchangeable, shall be tagged or marked for use on the hydraulic system only.

Hydraulic lines shall be individually and rigidly supported to prevent chafing damage, fatigue failures, and tension strain on the lines and fitting. Hydraulically driven radiator and charge air cooler fan drive systems are not acceptable.

The hydraulic system shall be configured and/or shielded so that failure of any flexible line shall not allow hydraulic fluid to spray or drain onto any component operable above the auto ignition temperature of the fluid.

TS 7.1.3 POWERPLANT

TS 7.1.3.1 ENGINE

The engine shall meet all regulatory requirements when operating on Ultra low sulpher fuel. The engine shall be EPA certified and compliant engine, with a displacement of 8.9 liters, or an approved equal. The engine shall provide 320 gross horsepower and 1,000 pound feet of torque at 1300 revolutions per minute and zero governor droop. The engine shall be governed by electronic controls that comply with SAE J-1708 or J-1939 for Serial Data Communications. All cables and electronic devices utilized as part of the electronic engine control system shall be adequately shielded from external interference. An electrically erasable programmable read-only memory (EEPROM) shall provide basic engine control functions such as rated speed and power, vehicle speed, engine governing, torque shaping, cold start logic, transient fuel control, diagnostics and engine power reduction.

The engine shall be monitored by a series of sensors which provide signals to the electronic module indicating pertinent pressures, temperatures, and fluid levels necessary to preserve the operating life of the engine. The control module shall also be capable of controlling the engine through signals received from an electronic accelerator pedal. The electronic pedal shall be equipped with a sensor that picks up accelerator pedal position at an infinite number of points throughout the range of the pedal. The operation of the pedal shall be completely electronic without mechanical controls or linkage. The pedal shall not have any exposed wiring in the driver's area.

The electronic control module (ECM) shall provide control for the air and fuel systems on the engine. The engine shall be protected from premature failure by the electronic control module and sensors. If a reading exceeds an acceptable range, a warning light shall notify the operator and the engine operation shall be brought under control or to a controlled stop. The electronic control module shall be equipped with a self-diagnostic system as well as an engine protection system and engine performance diagnostics. A failure shall be retained by them control module for evaluation by garage personnel using a diagnostic reader. The reader shall be capable of monitoring and evaluating engine system parameters such as intake manifold pressure, oil pressure, oil temperature, coolant level, coolant temperature, engine speed, throttle position and vehicle speed governing. The electronic control module shall be capable of communicating the features specified to the diagnostic reader.

The system shall be equipped with a means to limit the vehicle top speed via the engine's electronic controls.

The entire system shall be capable of communicating with the electronically controlled transmission. The primary objective of the system is to provide the capability for the electronic engine controls to reduce power by command of the transmission in the event of transmission malfunction (low oil level pressure; coolant temperature; etc.).

The engine electronic control module shall be constructed as a weatherproof enclosure on the engine that is protected from the environment. Engine mounted components (excluding wiring connectors) may be exposed to steam cleaning and pressure washing.

The engine shall be equipped with a fast idle and be driver controlled. The devices shall activate only with the transmission is in neutral and parking brake applied. This device may be used to help meet the requirements of coach air conditioning cool down. The engine starter shall be protected by an interlock that prevents its engagement when the engine is running. The starter shall be prevented from engaging when the transmission selector is in any position other than neutral. The engine ECM shall also have sufficient inputs/outputs for the Fire Protection system control reactions.

TS 7.1.3.2 COOLING SYSTEM

The EMP cooling system with electric fans shall be sized to maintain fluids at safe, continuous operating temperatures during the most severe operations possible with the coach loaded to GVWR and with ambient temperatures up to 110°F. Sufficient reserve capacity shall be provided by the cooling system to provide efficient cooling for the coolant and engine charge air cooler (CAC) with 25 percent of the CAC and radiator blocked. The cooling systems shall be factory filled with a 5O/50 mixture of Cummins antifreeze and water. Radiator(s), complete with charge air cooling circuit shall be mounted above the engine compartment. The charge air cooler and the radiator shall be mounted at least 60 inches above the road surface. The physical size and heat rejection capacity of the radiator along with the charge air cooling capacity shall be tested and approved by the engine manufacturer for this application. The radiator system shall be easily serviced through a top hinged access door. The radiator and charge air cooler shall not be stacked in front of one another. Door shall include gas-filled cylinders and a manual prop to hold the door in the upright/open position.

The charge air/cooling system radiator(s) shall be of durable corrosion-resist construction with welded-on tanks. Radiator(s) plumbing shall be stainless steel, copper, aluminized steel or brass tubing and if practicable, rubber hoses shall be eliminated. Necessary hoses shall be premium, silicone rubber type that are impervious to all coach fluids. All CAC hoses and coolant hoses shall be secured with constant torque hose clamps. Fan speed shall be regulated to minimize fan noise. No heat producing components or climate control system components shall be mounted between the engine cooling air intake aperture and the radiator(s). All cooling system fittings are to be cast iron, brass or copper.

Electric fans shall pull outside air through an exterior panel and across the radiator and charge air cooler at a minimum rate approved by the engine manufacturer for maximum cooling efficiency. For ease of maintenance, access to the fans shall be provided through a removable panel on the rear bulkhead inside the bus.

Radiator surge tank shall be made of heavy-duty stainless steel. A sight glass to determine satisfactory engine coolant level may be provided should adequate space exist for installation and periodic inspection. If installed, it shall be accessible by opening the engine and/or blower compartment access doors. A spring-loaded, push-button type valve shall also be provided to safely release pressure or vacuum in the cooling system. The cap shall also include a positive locking device to prevent opening of filler cap until pressure is released.

Radiator tubes are to be arranged to discourage dirt build up and encourage easy cleaning. The radiator shall be mounted in a way that eliminates cracks or fatigue due to vibration. Radiator mounting shall be as high as feasible. Radiator shall be a rebuildable radiator using brass or copper tubes and properly sized for this application. Radiator piping shall be stainless steel or brass tubing and if practicable, rubber hoses shall be eliminated. The radiator shall provide a minimum of six years of service without repair except in the event the radiator is damaged in an accident.

Filler cap shall be hinged to the filler neck and held closed by a spring. A temperature output for the alarm system meeting the approval of the engine manufacturer shall be provided to allow for proper cooling system function during warmer weather operation. Cooling system function shall be controlled electronically through the engine control system.

Engine thermostats shall be easily accessible for replacement. The engine cooling system shall be equipped with a properly sized Penray Need Release cooling system filter with a spin on disposable borate element. Quarter-turn ball type shutoff valves shall be provided on the coolant filter base which allow filter replacement without coolant loss. Quarter turn valves shall also be provided and installed in the entire cooling system which permit complete shutoff of both lines for the heating and defroster units.

All low points in the water-based cooling system shall be equipped with drain cocks. Air vent valves shall be fitted at high points in the cooling system unless it can be demonstrated that the system is self-purging.

Coolant levels and temperatures shall be monitored and reported to the Intelligent Vehicle Network.

TS 7.1.3.3 TRANSMISSION

The transmission shall be an ALLISON WT series B500R or approved equal, six speed transmission w/retarder, equipped with Allison Transmission Electronic Controls (ATEC) or approved equal. Maximum input horsepower shall be less than 420 horsepower. Maximum input torque capability shall be less than 1300 pound feet of torque.

The transmission shall have a one stage, three element, polyphase torque converter and a lock up clutch with a torsional damper. The transmission shall be fully automatic with six forward gear ratios and be supplied with a deep oil sump. if available. Shift calibration shall be set so that shifts shall be smooth under all operating conditions and provide optimal fuel economy. The transmission shall be equipped with a fuel optimization program and release clutch pressure when stopped in gear. The transmission shall only have one maintenance dipstick and no other secondary service lane dipsticks. The transmission will also include a Probalyzer or approved equal, brass mini-gauge plug to permit transmission fluid analysis sampling.

Allison transmissions shall be supplied with Load Based Shift Scheduling. Reduced Engine Load at Stops and Transynd transmission fluid or approved equal.

The gearing shall be of the constant mesh, helical, planetary type with the following ratios:

A function of the electronic controls shall be provided to prevent premature engagement and operation of the automatic transmission reverse gear. The transmission shall be governed by electronic controls with Smart Controls, including Load Based Shift Scheduling, Prognostics and Shift Energy Management which contain a programmable read-only memory (PROM) that will provide basic transmission control functions. All cabling and electronic devices utilized by the electronic transmission control system shall be adequately shielded against interference.

The transmission electronic module shall be capable of communicating with the engine electronic module to maintain maximum efficiency. The control module shall be equipped with a self-diagnostic system. A failure shall be retained by the control module for evaluation by garage personnel using a diagnostic reader.

The electronic controls shall be completely sealed from the environment. The transmission electronic control unit shall be located in a weatherproof box that is protected from environment or potential damage from under floor baggage. Direction of the transmission output (forward/reverse) shall be monitored and reported to the Intelligent Vehicle Network.

Odometer pulses switching between at least 2V above and 2V below a comparator reference voltage of 2.5V (referenced to vehicle ground) shall be provided to the Intelligent Vehicle Network. The maximum frequency shall not exceed 4 KHz. Specifics of the odometer pulse signal shall be subject to review by the Intelligent Vehicle Network supplier.

The Data Link function shall be provided to report the system's operating condition to an external source. The data link configuration shall conform to SAE standard J1939, the coded language used shall conform to SAE J1939, and all relevant transmission parameters defined in SAE J1939 and all relevant transmission system alarms, fault codes and status codes available through the manufacturer's diagnostic tools shall be broadcast over the SAE J1939 network. The Contractor shall provide Clever Devices AVM (automatic vehicle monitoring) certification that all codes available to the manufacturer's diagnostic tools have been defined to the Clever Devices AVM data dictionary and are being broadcast over the SAE J1939 network. Two connections in the controller shall be provided.

The transmission retarder shall be activated with the service brakes - throttle off retarder is not acceptable. Control of the retarder shall be staged and accomplished by applying the service brakes of the bus. At two psi brake application pressure, 33 percent of the retarder shall be applied. At four psi brake application pressure, 66 percent of the retarder shall be applied. At seven psi brake application pressure, the retarder shall be fully applied.

TS 7.1.3.4 ELECTRIC STARTER

The starter shall be a Delco MT-39 gear reduction type or approved equal and shall have a pre-engaged drive, which will engage into the ring-gear before the starter begins to turn. The starting system shall be inoperable whenever the master control is in the OFF position, and whenever the emergency shut-off switch is activated or the engine is running. A starter interlock shall be provided that shall prevent the starter motor from engaging the flywheel after the engine is started.

TS 7.1.3.4.1 SUPER CAPACITOR START AID

A super capacitor shall be supplied. The super capacitor shall be rated at 120 kilojoules and shall be installed in parallel with the batteries as an aid to starting the engine.

The module shall be activated to bring the capacitor in parallel with the batteries just prior to a start attempt and shall isolate the capacitor from the batteries when the vehicle is not running, ensuring that the capacitor is not supplying any electrical power to the bus when the engine is not running. The capacitor shall be mounted in a stainless enclosure that is easily serviceable and in an area where temperatures do not exceed *155*˚F. The enclosure shall have a decal mounted on the exterior to indicate danger when handling high current amperage equipment.

TS 7.1.4 EMISSIONS

TS 7.1.4.1 MOTOR VEHICLE POLLUTION REQUIREMENTS

The horsepower of the vehicle is adequate for the speed range and terrain in which it will be required to operate, and also to meet the demands of all auxiliary power equipment. The vehicle shall meet all applicable emission and engine design guidelines and standards and have no visible exhaust emissions resulting from the operation of the Coach.

TS 7.1.4.2 EXHAUST LOCATION

Exhaust gases and waste heat from the radiator shall not be discharged on the curbside and shall be directed generally left of centerline of the coach. Exhaust piping shall not restrict the underbody clearances. Exhaust shall not be through the body of the coach, as through a stack, but should be directed toward the street surface. The exhaust pipe shall be of sufficient height to prevent exhaust gases and waste heat from discoloring or causing heat deformation to the Coach. The entire exhaust system shall be adequately shielded to prevent heat damage to any Coach component, including the

exhaust after-treatment compartment area. The exhaust system shall be leak free to prevent exhaust products, including heat, from entering the Coach. The muffler and pipes shall be placed or mounted in such a manner that they do not restrict access to other equipment or components to the extent possible.

In addition to dissipation of heat, the exhaust outlet shall be designed to minimize rain or water generated from high-pressure washing systems from entering into the exhaust pipe and causing damage to the after-treatment.

If required by the engine manufacturer to meet particulate level requirements specified by EPA, a particulate trap will be provided. The particulate trap shall regenerate itself automatically if it senses clogging. Regeneration cycles and conditions will be defined by the engine manufacturer.

The exhaust system shall be leak free to prevent exhaust products, including heat, from entering the Coach. The catalytic converter shall be located as close as reasonably possible to the turbo exhaust outlet on the engine. The catalytic converter and muffler shall be shock mounted and mechanically isolated to minimize noise and/or vibration transfer to the coach structure to prevent fatigue failure and to allow for separate and easy component servicing. Exhaust components adjacent to the passenger area or electrical compartment or wiring shall be insulated. Adequate sound insulation shall also be provided.

The exhaust tubing sections shall be sized (modularized) to allow for easy removal or service. An accessible pressure test port shall be provided between the engine turbo exhaust discharge and the catalytic converter to permit the accurate measure of exhaust back pressure. All exhaust system components and their locations must be application approved by the engine manufacturer.

A momentary spring loaded, guarded key switch will be installed in the engine compartment for the purpose of manual regeneration of the particulate filter.

TS 7.2 FINAL DRIVE

TS 7.2.1 GENERAL REQUIREMENTS

The two rear axles shall have a load rating sufficient for the coach loaded to GVWR. Transfer of gear noise to the coach interior shall be minimized.

TS 7.2.1.1 DRIVE AXLE

The drive axle shall be a Meritor World Axle rated at 22,500 pounds or approved equal. The bearing journals on each spindle shall be induction hardened for greater durability. Ring gear shall be bolted to case. The drive axle wheel bearings and differential shall be lubricated with synthetic oil. Rear axle ratio shall be selected for speed and fuel economy.

TS 7.2.1.2 TRAILING AXLE

A trailing axle shall be provided behind the drive wheels. The trailing axle will be of a solid beam type and be non-steerable. The 45-foot coaches shall have a coach body rear rise feature which through a dash mounted switch, permit the redirection of suspension system air pressure which will raise the rear of the coach for maneuverability purposes. The third axle shall have single tires with tires being the same size as the tires on the other axles. Tag axle weight shall not exceed 12,000 pounds on 45-foot buses. In no event, with a full seated passenger load shall the load on any axle exceed 22,400 pounds. Combined weight on the rear tandem axles shall not exceed 34,400 pounds. Wheel bearings shall be tapered roller type and oil lubricated. A visual sight gauge shall be installed in the hub to check oil level.

TS 7.2.1.3 DRIVE SHAFT

The drive shaft shall be a minimum three inches outside diameter, heavy-duty type Meritor 1810 series or Spicer 1710 series, or approved equal. The drive shaft shall be guarded to prevent it from striking the floor of the coach or the ground in the event of a tube or universal joint failure. U-joint end cap retaining bolts shall be retained by metal locking plates. Both half-round yoke ends shall be attached using self-locking bolts.

TS 7.3 SUSPENSION

TS 7.3.1 GENERAL REQUIREMENTS

The front and rear axle suspension shall be pneumatic and equipped with straight side lobe air suspension bellows. Four suspension bellows shall be provided on the drive axle and two suspension bellows on the front axle. The trailing axle shall be equipped with two straight side lobe type air springs. Pressure in the trailing axle suspension shall be automatically adjusted as required by the load-sharing system. Manual air dump valves shall also be provided in the engine compartment.

The basic suspension system exclusive of bellows, height control valves, bushings and shock absorbers, shall last the life of the coach without major overhaul or replacement. Four heavy-duty rubber bushed silent block sleeve type radius rods shall be provided at both the front and rear drive axles to control lateral, longitudinal, and torsional movement. One transverse stabilizing rod shall be provided on front axle for additional support during coach lane changing or turning of corners. The coach shall be equipped with a sway bar designed to reduce body lean and increase bushing life. Items such as bushings and air springs shall be easily and quickly replaceable. Adjustment points shall be minimized and shall not be subject to a loss of adjustment in service. Necessary adjustments shall be easily accomplished without removing or disconnecting the components.

TS 7.3.2 SPRINGS AND SHOCK ABSORBERS

TS 7.3.3 TRAVEL

The suspension system shall permit a minimum wheel travel of 3.5 inches in jounce and three inches in rebound. Elastomeric bumpers shall be provided at the limit of jounce travel. Rebound travel may be limited by elastomeric bumpers or hydraulically within the shock absorbers.

TS 7.3.4 KNEELING

A driver-actuated kneeling device shall lower the coach floor three to six inches during loading or unloading operations regardless of load to a floor height of 42 inches measured at the longitudinal centerline of the front door. The park brake shall prevent movement when the coach is kneeled. The coach shall kneel and rise at a maximum rate of 1.5 inches per second at essentially a constant rate. A flashing indicator visible to the driver shall be illuminated until the coach is raised to a height adequate for safe street travel. An audible warning device that operates with the kneeling system shall be provided. A visual indicator meeting ADA requirements shall be provided on the curbside of the coach, visible to the boarding passenger which activates during the kneeling operation. This indicator shall be appropriately marked. The operating state of the kneeling device (kneeled, not kneeled) shall be electronically monitored and reported to the Intelligent Vehicle Network.

TS 7.3.5 DAMPING

Vertical damping of the suspension system shall be accomplished by hydraulic shock absorbers mounted to the suspension arms or axles and attached to an appropriate location on the chassis. Damping shall be sufficient to control coach motion to four cycles or less after hitting road

perturbations. Shock absorbers shall maintain their effectiveness for at least 50,000 miles in normal service. The coach shall be equipped with four shock absorbers on the drive axle and one on each side of the front axle and one on each end of the tag. Shock absorbers shall be interchangeable on each axle, side to side.

TS 7.3.6 LUBRICATION

All elements of steering, suspension, and drive systems requiring scheduled lubrication shall be provided with grease fittings conforming with SAE Standard J534. These fittings shall be located for ease of inspection, and shall be accessible with a standard grease gun without flexible hose end from a pit or with the coach on a hoist. Each element requiring lubrication shall have its own grease fitting with a relief path. Lubricant specified shall be standard for all elements on the coach serviced by standard fittings. All fittings shall be standard pipe thread.

TS 7.3.7 UNDERCOATING

Tectyl, PPG Corashield undercoating, or approved equal, shall be applied to the underside of the body, frame, and wheelwells. Undercoating overspray on the exterior of the coach shall be removed prior to delivery. Underbody components such as air suspension bellows and height control valves, shock absorbers, lubrication fittings, air brake system valves, brake lining, muffler and exhaust system components, drive shaft, and engine and transmission sumps shall be protected from undercoating overspray.

TS 7.4 STEERING

TS 7.4.1 STRENGTH

Fatigue life of all steering components shall exceed 1,000,000 miles. No element of the steering system shall fail before suspension system components when one of the tires strikes a severe road hazard. Inadvertent alternations of steering as a result of striking road hazards are steering failures. The steering column shall be manufactured by TRW or integral to the VDO workstation and shall provide both tilt and telescope features. The steering wheel shall be a wrapped, molded polypropylene. Finger grips shall be provided on the wheel, down and away from the driver. Steering systems that utilize an intermediate shaft to connect the main axle mounted steering box to the steering column shall utilize intermediate steering shafts.

The front axle shall be a non-driving Meritor axle rated at 16,000 pounds or ZF RL 75 EC with independent front suspension and shall be equipped air operated, integral, automatic self-adjusting disc brakes with a load rating sufficient for the coach loaded to GVWR. King-pins shall be the low friction.

TS 7.4.2 TURNING EFFORT

The steering wheel shall be not less than 19.5 inches in diameter and shall be shaped for firm grip with comfort for long periods of time and shall not be padded. The steering wheel shall be removable with a standard or universal puller.

Hydraulically assisted power steering shall be provided. The steering gear shall be an integral type with flexible lines eliminated or the number and length minimized. Steering torque applied by the driver shall not exceed 10-foot-pounds with the front wheels straight ahead to turned 10 degrees. Steering torque may increase to 70-foot-pounds when the wheels are approaching the steering stops. Steering effort shall be measured with the coach at SLW, stopped with the brakes released and the engine at normal idling speed on clean, dry, level, commercial asphalt pavement and the tires control. With the coach in operation, the steering effort shall not exceed 55 pounds at the steering wheel rim and perceived free play in the steering system shall not materially increase as a result of power assist failure.

Caster angle shall be selected to provide a tendency for the return of the front wheels to the straight position with minimal assistance from the driver.

TS 7.5 BRAKES

TS 7.5.1 SERVICE BRAKE

TS 7.5.1.1 ACTUATION

Service brakes shall be controlled and actuated by an air system. Force to activate the brake pedal control shall be an essentially linear function of the coach deceleration rate. The angle of the pedal shall be ergonomically designed to minimize fatigue. At least six inches of slack in the airlines shall be available to allow for change out of the brake treadle valve and pedal assembly. The brake pedal shall be slightly lower than the accelerator. Provisions at the front shall be made to activate the brakes from the towing vehicle. Release of the emergency/parking brake shall require one full application of the service brake once the emergency/parking brake release valve is depressed. The brake system shall be equipped with an emergency brake release control valve. Use of this valve shall allow for three consecutive emergency brake releases. The operating state of the service brake (applied, released) shall be electronically monitored and reported to the Intelligent Vehicle Network.

The operating state of the parking brake (applied, released) shall also be electronically monitored and reported to the Intelligent Vehicle Network

TS 7.5.1.2 FRICTION MATERIAL

Brake lining (pads) must provide optimum performance with the brake system being used and shall minimize brake noise under all weather conditions and shall be interchangeable between axles.

TS 7.5.1.3 HUBS, ROTORS and CALIPERS

Wheel bearing seals shall have integral replaceable wear surfaces. Wheel bearings and hubs shall be oil lubricated on all axles. Rotors shall be interchangeable between *the drive and tag* axle positions. *The front axle rotor may be unique and not interchangeable with other axle positions.* Calipers shall be interchangeable between axle positions of the same side (roadside or curbside only).

TS 7.5.1.4 ANTILOCK BRAKE SYSTEM

The coach shall be equipped with a Meritor Wabco, Bendix ABS Premium Cab model, or approved equal antilock brake system. The system shall utilize a six-channel antilock braking system (ASS) with an electronic controller assembly that will provide full vehicle wheel control braking for the coach. The design of the digital electronics, shall provide a high degree of protection from radio and electromagnetic interference.

The ECU shall be remote mounted from the brake valve in a location that permits easy access of the controller for maintenance functions. The antilock brake system shall provide individual wheel control by using a wheel speed sensor and modulator at each front axle, drive axle, and tag axle. The drive axle brakes shall be controlled completely independent of each other and therefore brake application pressure at an individual wheel shall be adjusted solely on the basis of its behavior on the road surface on which it is traveling.

Outputs from the ECU shall be provided to the modulators. The modulator shall be capable of receiving signals from the ECU and shall be designed to modify operator applied air pressure to the service brakes. The modulator shall be located near the service actuator(s) it controls and shall be the last air

valve through which air passes on its way to the brake actuator. A wiring harness shall connect each modulator to the ECU. Solenoid valves contained in the modulator shall provide the electrical interface between the controller electronics and the air brake system. The ECU shall be capable of simultaneously and independently controlling six individual modulator assemblies.

The antilock brake system logic shall be designed to respond to component equipment failure using a conservative fail safe philosophy. Any single electrical failure of a component devoted to antilock braking shall result in simultaneous illumination of the antilock condition lamp on the dash, a disabling of all or part of the antilock system, and reversion to standard braking on wheels no longer under the control of antilock.

All electrical harnesses utilized to provide the antilock brake system shall be separate and independent of all other coach wiring. Under no circumstances shall antilock brake wiring harnesses, with the exception of 12 volt power and ground wires, the serial interface wiring, and the abs warning light circuit, be combined with or retained in existing harness looms, tape or trunks. The wires that carry information and power into and out of the controller shall be terminated with a weatherproof connector with the wiring sealed to the connector with the exception of the ECU connectors. The wire gauge used shall be sized specifically for the task which it is designed to perform. A dashboard mounted antilock condition lamp shall be provided which shall be controlled by the ECU via the I/O controls multiplex modules and shall serve as a means of providing the operator with the operating condition of the antilock brake system. All electrical connections on the antilock system shall be molded connectors, or approved equal.

The Data Link function shall be provided which enables the ECU to report its operating condition to an external source. The controller data link configuration shall conform to SAE standard J1939. The coded language used shall conform to SAE J1939 and all relevant braking parameters defined in SAE J1939 and all relevant braking system alarms, fault codes and status codes available through the manufacturer's diagnostic tools shall be broadcast over the SAE J1939 network. The Contractor shall provide Clever Devices AVM (automatic vehicle monitoring) certification that all codes available to the manufacturer's diagnostic tools have been defined to the Clever Devices AVM data dictionary and are being broadcast over the SAE J1939 network. Two connections in the controller shall be provided.

TS 7.5.1.5 AIR SYSTEM

The coach air system shall operate all accessories and the braking system with reserve capacity. The engine drive air compressor shall be sized to charge the air system brake reservoir from o psi. to the governor cutoff pressure (125 psi.±2) in less than three minutes while not exceeding the engines rated speed. The air compressor shall be set to cut in at 105 psi. Current air pressure in the brake reservoir shall be electronically monitored to a resolution of +/- 3 PSI and reported to the Intelligent Vehicle Network

Regardless of the systems air pressure, idle up to the rated engine speed shall be available to the driver with the transmission in neutral and the parking brake applied. With the air system fully charged and the engine shut off, the reservoir capacity shall be sufficient to permit four full brake applications to maintain 60 psig. The pressure relief valve shall be mounted in the compressor cylinder head. The muffler or ping tank shall be mounted in the engine compartment relative to the air compressor discharge port. A drain mounted on the muffler or ping tank shall be directed or piped so as to discharge below the engine cradle or bulkhead level.

Air lines, except necessary flexible lines, shall conform to the installation and material requirements of SAE Standard J844-Type 1 or ASTM B-75 for copper tubing with standard, brass, flared or ball sleeve fittings, or SAE Standard J844-Type 3B for nylon tubing or ASTM 0-1248, Type 1, Class C Grade E5 for polyethylene tubing if not subject to temperatures over 200˚F. Accessory and other noncritical lines

may use Type 3A tubing. Nylon tubing shall be installed in accordance with the following color coding standards:

Green	Indicates primary brakes and supply
Red	Indicates secondary brakes
Brown	Indicates parking brake
Yellow	Indicates compressor governor signal
Black	Indicates accessories
Blue	Indicates suspension

Line supports shall prevent movement, flexing, tension strain, and vibration. Copper lines shall be supported by looms, grommets, or insulated clamps to prevent the lines from touching one another or any component of the coach. To the extent practicable and before installation, the lines shall be pre-bent on a fixture that prevents tube flattening or excessive local strain. Copper lines shall be bent only once at any point, including pre-bending and installation. Rigid lines shall be supported consistent with standard automotive practice.

Nylon lines may be grouped and shall be continuously supported. The compressor air intake line shall have a diameter large enough in diameter and be short enough to prevent restricting airflow to the compressor inlet. The compressor discharge line between powerplant and body mounted equipment shall be flexible convoluted copper or stainless steel line, or may be flexible Teflon hose with a braided stainless steel jacket. Other lines necessary to maintain system reliability shall be flexible Teflon hose with a braided stainless steel jacket. End fittings shall be standard SAE or JIC brass or steel, flanged, reusable, swivel type fittings. Flexible hoses shall be as short as practicable and individually supported. They shall not touch one another or any part of the coach except for the supporting grommets. Flexible lines shall be supported at two-foot intervals or less. Airlines shall be installed to minimize air leaks.

Each coach shall not leak down more than 1.5 psi. as indicated on the instrument panel mounted air gauges, within 15 minutes from the point of governor cut-off. All reservoir supply and delivery airlines shall be sloped toward reservoirs and routed to prevent water traps. Grommets shall protect the airlines at all points where they pass through understructure components. Provision shall be made to apply shop air to a convenient location in the engine compartment and at the front of the coach and shall include a Schrader standard bore valve. The engine compartment Schrader valve shall be located ahead of a quarter turn valve. Air for the compressor shall be filtered through the main engine air cleaner system. All air reservoirs shall meet the requirements of SAE Standard J10 and shall be equipped with clean-out plugs and quarter-turn drain valves. These valves and any automatic moisture ejector valves shall be protected from road hazards by major structural members.

The air system shall be protected by a pressure relief valves set at 200 psi @ air dryer, and 250 psi @ compressor, and shall be equipped with check valves and pressure protection valves to assure partial operation in case of line failures. The main airline check valve located between the air compressor and the first reservoir must be accessible for maintenance. Means shall be provided to establish the check valve to be in working order.

A model Bendix AD-IP or AD-IS air dryer or approved equal shall be provided and installed according to component manufacturer's recommendations. A Bendix Puraguard filter, shall be provided. The filter shall be installed between the air dryer and the wet tank. Separator shall be within four feet of the air dryer. Inlet air temperature is not to exceed 150 degrees F from the compressor. The condition and

performance of the air dryer heater shall be electronically monitored and reported to the Intelligent Vehicle Network.

TS 7.6 GENERAL CHASSIS

TS 7.6.1 WHEELS AND TIRES

TS 7.6.1.1 WHEELS

Wheels shall be hub piloted, Alcoa forged disk, with Duraflange and Durabrite finish, polished on both sides, or approved equal, with five hand holes. All wheels shall be interchangeable and shall be removable without a puller. Wheels shall be compatible with tires in size and load-carrying capacity. Front wheels and tires shall be balanced as an assembly. Wheels shall be capable of accommodating Goodyear J radial tires. One spare wheel, complete with mounted tire shall be provided.

The wheel nuts shall meet all physical property requirements defined in ASTM A 194-2H, ISO and SAE standards. The nut shall be phosphate coated for corrosion resistance. The bench testing requirements for the lug nuts shall satisfy MIL-STD 1312 vibration test 7 and the Junkers dynamic test.

TS 7.6.1.2 TIRES

Tires shall be suitable for the conditions of commuter service and sustained operation at the maximum speed capability of the coach. Load on any tire at GVWR shall not exceed tire supplier's rating. Tires shall provide the ride, noise, and handling characteristics associated with the demands of commuter service. BCT's tire contractor shall supply nine leased Goodyear tires for each bus.

TS 7.6.2 FUEL SYSTEM

TS 7.6.2.1 FUEL LINES

Fuel lines shall comply with NFPA-52. All tubing shall be a minimum of seamless Type 304 stainless steel (ASTM A269 or equivalent). Fuel lines and fittings shall not be fabricated from cast iron, galvanized pipe, aluminum" plastic, or copper alloy with content exceeding 70 percent copper. Pipe fittings and hoses shall be clear and free from cuttings, burrs or scale.

Fuel lines shall be identifiable as fuel lines only. High-pressure lines shall be pressure tested to a minimum of 125 percent of system working pressure prior to fueling. The bus manufacturer shall have a documented procedure for testing the high pressure line assembly. Fuel lines shall be securely braced and supported using "split-block" type stainless steel P clamps; all mounting clamps shall be mounted to a rigid structure to minimize vibration and shall be protected against damage, corrosion or breakage due to strain, rubbing, or wear. "Floating clamps" (not mounted to a rigid structure) shall not be permitted. Fuel lines shall not be used to secure other components (wires, air lines, etc.). Manifolds connecting fuel containers shall be designed and fabricated to minimize vibration and shall be installed in protected location(s) to prevent line or manifold damage from unsecured objects or road debris.

Fuel hose connections, where permitted, shall be less than 48 inches in length, made from materials resistant to corrosion and action of natural gas, protected from fretting and high heat. Teflon lined fuel hoses, if used, shall utilize conductive Teflon to prevent the buildup of static charges due to fuel flow. All fuel hoses shall be supported approximately every 12 inches.

TS 7.6.2.2 FUEL TANKS

The fuel tank shall be made of corrosion resistant stainless steel with internal baffles. The fuel tank shall be made of sufficiently heavy gauge 300 series or ASTM Spec. A240 stainless steel. The fuel tank shall

have a usable capacity of not less than 220 gallons on 45-foot buses. Split or dual fuel tank systems are not acceptable.

Installation

The fuel tank(s) shall be securely mounted to the bus to prevent movement during bus maneuvers.

The fuel tank(s) shall be equipped with an external, hex head, drain plug. It shall be at least a ⅜-inch size and shall be located at the lowest point of the tank(s). The fuel tank shall have a removable filter to permit cleaning and inspection. The fuel tank(s) shall have an inspection plate or easily removable filler neck to permit cleaning and inspection of the tank(s) without removal from the bus. The tank(s) shall be baffled internally to prevent fuel-sloshing noise regardless of fill level. The baffles or fuel pickup location shall assure continuous full power operation on a six percent upgrade for 15 minutes starting with no more than 25 gallons of fuel over the unusable amount in the tank(s). The bus shall operate at idle on a six percent downgrade for 30 minutes starting with no more than 10 gallons of fuel over the unusable amount in the tank(s).

The materials used in mounting shall withstand the adverse effects of road salts, fuel oils for the life of the bus.

Labeling

The capacity, date of manufacture, manufacturer name, location of manufacture, and certification of compliance to Federal Motor Carrier Safety Regulation shall be permanently marked on the fuel tank(s). The markings shall be readily visible when the fuel fill door is open and shall not be covered with an undercoating material.

Fuel Filler

The fuel filler shall be located seven to 32 feet behind the centerline of the front door on the curbside of the bus. The filler cap shall be retained to prevent loss and shall be recessed into the body so that spilled fuel will not run onto the outside surface of the bus. The fuel filler neck shall be equipped with a pressure relief vent and level control.

The fuel lines forward of the engine bulkhead shall be in conformance to SAE Standards.

The fuel filler shall accommodate a nozzle that forms a locked and sealed connection during the refueling process to eliminate spills. Fuel shall not be allowed to flow into the tank unless the nozzle has been properly coupled, locked and sealed to the filler. With the nozzle open, fuel shall enter the tank at a fill rate of not less than 40 gallons per minute of foam-free fuel without causing the nozzle to shut off before the tank is full. The nozzle shall automatically shut off when the tank is essentially full. Once disconnected, fuel shall not be allowed to flow through the nozzle at any time. Any pressure over three psi shall be relieved from the fuel tank automatically. An audible signal shall indicate when the tank is essentially full. The dry break system shall be compatible with BCT's system (EMCO WHEATON, POSI lock). The fuel filler cap shall be hinged.

The fuel tank filler neck must be equipped with a poppet valve mounted internal to the fuel filler neck to prevent fuel splash back from the fuel tank.

The fuel lines forward of the engine bulkhead shall be in conformance to SAE Standard J 1149 Type 1 for copper tubing or Aero Quip FC 350 cloth braided hose or SAE Standard J844 Type 3B for nylon tubing color coded orange or FC 300, SAE100R5.

All filters and lines shall be installed in such a manner as to avoid excessive heat and fire hazard (e.g., protected from exposure to temperatures above 250° F, positioned so leaks or breaches will not permit fuel to contact exhaust parts hotter than 250°F). Tubing and lines shall be installed so as not to rub or

be rubbed by other components.

The Fuel Filter shall be a spin-on primary and secondary fuel filter approved by the engine manufacturer and located for ease of replacement.

TS 7.6.3 BUMPER SYSTEM

TS 7.6.3.1 LOCATION

Bumpers shall provide impact protection for the front and rear of the coach up to 26 inches above the ground. The bumpers shall wrap around the coach to the extent practicable without exceeding allowable coach width.

TS 7.6.3.2 FRONT AND REAR BUMPER

Front bumper shall be provided and shall consist of energy absorbing modules that are self-restoring, integral black urethane, with a minimum 1700 PSI tensile strength, 250 percent elongation, and 350 PSI tear strength. Bumper support structure is to be constructed of aluminum or high strength steel, and provide a single, full length structural support for bumper modules.

The bumpers and modules shall be shaped to wrap around the coach to protect the engine compartment doors. Bumper construction shall provide for disassembly and service of the modules and structural components independently of one another.

TS 7.6.4 ELECTRICAL SYSTEM

The basic coach electrical control and wiring system shall be I/O Controls G-4 DINEX Multiplex System or approved equal. Versatility and future expansion of the system shall be provided for by expandable system architecture. Gateway devices used to interface the vehicle level control system shall utilize the above recommended industrial standard with the communication protocol being either full or half duplex. The distributed multiplexing shall consist of a master module with satellite modules located throughout the bus with the intent to minimize primary wiring and to minimize vehicle weight. The system components shall be capable of reliable operation in a transit environment while encountering mobile shock and vibration. Each module shall be adequately shielded to prevent interference by EMI and RFI.

The multiplex power source shall be isolated to avoid any ground noise. A built in self-test (BIST) system utilizes shall be provided utilizing the left and right turn signal tell tales to flash diagnostic codes when activated. The BIST shall check for module communication failures or output feedback problems within the system, and display module faults on the right turn signal telltale or module output faults on the left turn signal telltale. The BIST is activated with the engine override switch and will self-terminate after it has completed one cycle.

The components of the multiplex system shall be of modular design thereby providing for ease of replacement by field maintenance personnel. Furthermore, each module shall utilize LED's to indicate circuit integrity and assist in rapid circuit diagnostics and verification of the load and wiring integrity. Each circuit shall be capable of providing a current load of up to 10 amperes of continuous load or 20 Amperes intermittent. The internal controls device shall be a solid state device, providing an extended life service cycle. Protection to each individual circuit shall be provided be either non-self-resetting circuit breakers or fuses. Programmable time delay functions and integrated flasher capabilities shall be contained in the control module.

The electrical system shall provide and distribute power to ensure satisfactory performance of all electrical components. The system shall supply a nominal 24 volts of direct current. Precautions shall

be taken to minimize hazards to service personnel. The power generating system shall be rated sufficiently higher than the total possible electrical load to maintain the charge on the batteries at all operating conditions including the engine at idle. The alternator(s) shall be sized to provide the electrical load plus 10 percent reserve. All circuits shall be protected by circuit breakers or fuses. Fuses shall be used only where it can be demonstrated that circuit breakers are not practicable, and they shall be easily accessible for replacement. Redundant grounds shall be used for all electrical equipment except where it can be demonstrated that redundant grounds are not practical. One ground may be the bus body and framing and shall be attached to ground studs. Grounds shall not be carried through hinges, bolted joints (except those specifically designed as electrical connectors), or powerplant mountings. Wiring and electrical equipment necessarily located under the coach shall be insulated from water, heat, corrosion, and mechanical damage.

The electrical system shall include the ability to, in response to a discrete input from the vehicle network processor, maintain electrical power to the destination sign controller (ODK) and processor for a customer-configurable time interval (nominally 15 minutes) after the run switch is turned off.

A Data Link function shall be provided which enables the master module to report the system's operating condition to an external source. The controller data link configuration shall conform to SAE standard J1939, the coded language used shall conform to SAE J1939, and all relevant electrical parameters defined in SAE J1939 and all relevant electrical system alarms, fault codes and status codes available through the manufacturer's diagnostic tools shall be broadcast over the SAE J1939 network. The Contractor shall provide Clever Devices AVM (automatic vehicle monitoring) certification that all codes available to the manufacturer's diagnostic tools have been defined to the Clever Devices AVM data dictionary and are being broadcast over the SAE J1939 network. In addition, conditions indicative of arcing within the alternator shall be electronically detected and transmitted to the Intelligent Vehicle Network. Two connections in the controller shall be provided.

TS 7.6.4.2 MODULAR DESIGN

Design of the electrical system shall be modular so that each major component, apparatus panel, or wiring bundle is easily separable with standard hand tools or by means of connectors. Each module shall be removable and replaceable in less than 30 minutes by a mechanic. Powerplant wiring shall be an independent wiring module. Replacement of the engine compartment wiring module(s) shall not require pulling wires through any bulkhead of removing any terminals from the wires.

TS 7.6.4.3 JUNCTION BOXES

All relays, controller, flashers, and other electrical components shall be mounted in easily accessible junction boxes. The boxes shall be sealed to prevent moisture from normal sources, including engine compartment cleaning, from reaching the electrical components and shall prevent fire that may occur inside the box from propagating outside the box. If a rear junction box is required, it shall be located away from the surge tank or properly protected from coolant overflows. The components and circuits in each box shall be identified and their locations recorded on a schematic drawing permanently glued to or printed on the inside of the box cover or door. The drawing shall be protected from oil, grease, fuel, and abrasion. A rear start and run control box shall be mounted in an accessible location in the engine compartment. No electrical controls shall be located where spillover from the surge tank can wash over the electrical controls or enter junction boxes.

Care shall be taken to route electrical harnesses from junction boxes to facilitate troubleshooting and to reduce defects. Terminal strips not blocks shall be used to make connections. Wiring under the coach floor in the baggage area shall be routed in an enclosed trough.

TS 7.6.4.4 WIRING AND TERMINALS

All wiring between major electrical components and terminations, except battery wiring, shall have double electrical insulation, shall be waterproof, and shall meet specification requirements of SAE Recommended Practice J555 and J1128 Type SXL or GXL. TXL wiring is permitted, but not in the engine compartment. All wiring harnesses manufactured for buses purchased under this contract shall be designed/manufactured specifically for the operation of all sub components installed on the buses. Harnesses shall be properly designed and sized to the bus. Battery wiring shall conform to specification requirements of SAE Standard J 1127Type SGX or SGT and SAE Recommended Practice J541. All wiring shall be properly grouped, numbered, and color-coded full length. Numbering shall be stamped at least every three inches. Installation shall permit ease of replacement. All wiring harnesses over 5 feet long and containing at least two wires shall include at least two or 10 percent excess wires whichever is greater for spares that are the same size as the largest wire in the harness excluding the battery cables. In addition, 12 spare wires distributed proportionally between the lightest and heaviest gauge used (excluding battery cables) shall be provided between the front and rear junction boxes. Wiring harnesses shall not contain wires of different voltages unless all wires within the harness are sized to carry the current and insulated for the highest voltage wire in the harness. Double insulation shall be maintained as close to the terminals as practicable. The requirements for double insulation shall be met by wrapping harnesses with plastic electrical tape or by sheathing all wires and harnesses with nonconductive, rigid or flexible conduit. Grommets of elastomeric materials shall be provided at points where wiring penetrates metal structure. Wiring supports shall be nonconductive.

Precautions shall be taken to avoid damage from heat, water, solvents, or chafing. Wiring length shall allow replacement of end terminals twice without pulling, stretching, or replacing the wire. Battery cables and alternator/generator output cables shall utilize AMP terminal ends or approved equal. Except for those on large wires such as battery cables, terminals shall be crimped to the wiring. Terminals shall be full ring type or interlocking and corrosion resistant. T splices may be used when it is less than 25,000 circular mills of copper in cross section: a mechanical clamp is used 'in addition to solder on the splice; the wire supports no mechanical load in the area of the splice; and the wire is supported to prevent flexing.

TS 7.6.5 ELECTRICAL COMPONENTS

TS 7.6.5.1 GENERAL REQUIREMENTS

All electrical components, including switches, relays, flashers, and circuit breakers, shall be heavy-duty designs. To the extent practicable, these components shall be designed to last the service life of the coach and shall be replaceable in less than 25 minutes by a mechanic. Sockets of plug-in components shall be polarized where required for proper function and the components shall be positively retained. Any manual reset circuit breakers critical to the operation of the coach shall be mounted in a location best suited to the application with visible indication of open circuits. The electric motor shall be heavy-duty either wound field type or permanent magnet, as listed below. Electric motors shall be located for easy replacement and except for the cranking motor the brushes shall be replaceable in less than 15 minutes without removing the motor. All motors shall be brushless.

Main Evaporator
Condenser Motors
Driver's Heater and Defroster
Coolant Recovery Pump Motor
Windshield Wiper Motors

A dedicated and isolated circuit shall be incorporated that provides a filtered, conditioned power supply to BCT specified and future electronic systems. This shall be accomplished by utilizing a DC/DC converter. This DC/DC converter shall be connected across the bus 24 volt power source and shall provide a conditioned, regulated 13.6 volts DC. This DC/DC converter shall provide a minimum of 30 amps DC. If all combined electronic loads consume more than 75 percent of the maximum current

capabilities of the converter, then a second DC/DC converter shall be utilized and the electronic loads shall be split such that one DC/DC converter shall be the power source for the radio system, while the other DC/DC converter shall be the power source for the other electronic systems (fare collection and electronic signs). This conditioned, regulated power source shall be labeled Electronic Systems Conditioned Power Source. If two converters are used, the output of one converter shall be labeled ESCPS1 and the output of the other power converter shall be labeled ESCPS2. Dual electric horns shall be provided. Horns shall be positioned to be protected from road hazards and the elements. The horn trumpets shall be down turned to assure drainage of any moisture that may have entered.

TS 7.6.5.2 BATTERIES

Batteries shall be easily accessible for inspection and serviceable only from outside the coach and shall be securely mounted on a sliding tray. The battery tray shall accommodate a lead acid battery system and shall properly support the batteries during service, filling with automatic equipment, inspection, and replacement. A positive lock shall retain the battery tray in the normal position. Batteries shall be of premium construction and shall be fitted with threaded stud terminals. Batteries shall be 8D with 1350 cold cranking amp capacity with 450 CCA reserve minimum. Positive and negative terminals shall have different size studs, and the battery terminals and cables shall be arranged to prevent incorrect installation. Battery terminals shall be located for access in less than 30 seconds with jumper cables. No less than two conventional lead-acid batteries conforming to SAE Standard J537-Type 20T8 shall be provided. Battery cables shall be flexible and sufficiently long to reach the batteries in extended positions without stretching or pulling on any connection and shall not lie on top of the batteries. The battery terminals and cables shall be color-coded with red for the 12Vand 24V positive and black for negative. A slave connection to the batteries shall provide a direct connection to the batteries for jump starting.

TS 7.6.5.3 MASTER BATTERY SWITCHES

A master battery switch shall be provided near the batteries to provide complete, simultaneous disconnecting of the batteries from all bus 12 and 24 volt electrical systems. The master switch shall be a "knife" type switch. Rotary style switches are not acceptable. The master switch shall be located behind a dedicated access door and shall be accessible in less than 10 seconds for operation. The master switch shall be capable of carrying and interrupting the total circuit load. Opening the master switch with the power plants operating shall not damage any component of the electrical system. A second and independent master switch shall disconnect all electronic circuits from the bus electrical system.

TS 7.6.5.4 FIRE DETECTORS

The Amerex or approved equal, fire suppression system shall provide fire detection capabilities to comply with this section. The sensors shall detect over temperature in the critical areas and shall activate the fire alarm bell and warning light in the driver's compartment and the fire suppression system. The sensors, once deployed, must be manually deactivated.

TS 7.6.5.5 RADIO NOISE SUPPRESSION

Proper suppression equipment shall be provided in the electrical system to eliminate interference with radio and television transmission and reception. This equipment shall not cause interference with any electronic system on the coach. Suppression shall be in accordance with SAE Practice J1708 and FCC standards.

TS 7.7 INTERIOR CLIMATE CONTROL

TS 7.7.1 CAPACITY AND PERFORMANCE

The climate control system shall be highly reliable since most failures are Class 2. Manually controlled shut-off valves shall be installed in the refrigerant lines before and after the filter dryer to allow isolation of the dryer for service. Manually controlled shut-off valves in the refrigerant lines shall allow isolation of the receiver and compressor for service. Self-sealing couplings or manual shut-off valves shall be used to break and seal the refrigerant lines during removal of major components such as the refrigerant compressor or condenser. Condenser and evaporator fans shall have a safety guard to prevent contact between mechanics and rotating fan blades. The appropriate safety warning labels shall be permanently affixed at this location. Both roof top and under floor HVAC systems are acceptable provided that the performance requirements of this specification are met.

The system shall be tested to verify that the HVAC system performs as follows: The air conditioning portion of the HVAC system shall be capable of reducing the passenger compartment temperature from 110°F to 70 OF +/-3 OF in less than 30 minutes after system engagement. Engine temperature shall be within the normal operating range at the time of start-up of the cool-down test, and the engine speed shall be limited to fast idle at percent max governed speed that may be activated by a driver-controlled device. During the cool-down period, the refrigerant pressure shall not exceed safe high-side pressures, and the condenser discharge air temperature, measured 6 in. from the surface of the coil, shall be less than 45°F above the condenser inlet air temperature. No simulated solar load shall be used. There shall be no passengers on board, and the doors and windows shall be closed.

The pull-up requirements for the heating system shall be in accordance with Section 9 of APTA's "Recommended Instrumentation and Performance Testing for Transit Bus Air Conditioning." With ambient temperature at -10 of, and vehicle cold soaked at that temperature, the bus heating system shall warm the interior passenger compartment to an average temperature of 70 of ±2 OF within 70 minutes. Interior climate control system shall be provided and operate on refrigerant 134a. It shall maintain the interior of the coach at a level suitable for conditions found in the continental United States. The heating, ventilating, and cooling systems shall maintain an average passenger compartment temperature between 60°F and 80°F with a relative humidity of 50 percent or less. The system shall maintain these conditions in ambient temperatures of 10°F to 100°F, with ambient humidity of five to 100 percent while the coach is running. In ambient temperatures of 95°F to 115°F with relative humidity greater than 50 percent, the system shall maintain a temperature gradient of 20°F while the coach is running. In ambient temperatures of 10°F to -10°F, the average interior temperature shall not fall below 55°F when the coach is running with no passengers.

The compressor shall be belt driven through an electric clutch. The air conditioning compressor clutch shall be hub mounted not crankshaft mounted and the clutch bearing shall be able to be lubricated without the need for disassembly. Compressor drive belts shall be manufactured from Kevlar material to provide longer service life. A manually adjustable belt tensioning device shall be provided to maintain proper belt tension at all times. The main air conditioning system capacity shall be at least 90,000 BTU's/HR with R134a. Driver's AIC capacity shall be at least 10,800 BTU's/HR.

The condenser fan motors brushless ECDC type with totally enclosed grease lubricated bearings. Motor shall be 24 volt and operate only when the AIC is on for maximum efficiency.

The evaporator shall be mounted in the same compartment as the heater core for "Reheat Cycle" and humidity. The system shall be capable of introducing no less than 15 percent fresh air into the bus without the need to open the door or windows. A separate control shall be provided for the front dash heating and air conditioning. A control panel is required for the system. Control shall be within easy reach of the operator. System shall allow the driver to set a specific interior coach temperature between the range of 60°F and 80°F. The outside temperature can be displayed by switching between interior and exterior on the control panel. The HVAC controller shall monitor the temperature so that the interior

temperature selected is maintained consistently. Where practicable, all controls shall be of a solid state design.

An internal ventilation system with air outlets shall be provided and connected directly to the main AIC system, to provide conditioned air at each two passenger seat. Outlets shall be passenger controlled by twisting on or off, and by directing the air flow.

The manufacturer shall provide and install two Schraeder valves with caps near the air conditioning compressor for purposes of testing system pressure. All electric motors which are part of the climate control system shall be brushless ECDC motors. Motors shall have double sealed, pre-lubricated anti-friction, replaceable ball bearings with moisture resistant grease.

A Data Link function shall be provided which enables the HVAC Controller to report the system's operating condition to an external source. The controller data link configuration shall conform to SAE standard J1939, the coded language used shall conform to SAE J1939, and all relevant HVAC parameters defined in SAE J1939 and all relevant HVAC system alarms, fault codes and status codes available through the manufacturer's diagnostic tools shall be broadcast over the SAE J1939 network. The Contractor shall provide Clever Devices AVM (automatic vehicle monitoring) certification that all codes available to the manufacturer's diagnostic tools have been defined to the Clever Devices AVM data dictionary and are being broadcast over the SAE J1939 network. Two connections in the controller shall be provided.

TS 7.7.2 CONTROLS

The heating, cooling, ventilating and off operational modes of the interior climate control system shall be controlled by switches or display conveniently located to the driver. In the heating and cooling modes, the system shall be governed by a control that regulates the amount of cooling and heating capacity available to the passenger area. The temperature will be adjustable between 60°F and 80°F. The temperature sensors used must be suitable for transit service and accurate to +/- 1°F.

TS 7.7.3 AIR FLOW

TS 7.7.3.1 PASSENGER AREA

The cooling mode of the interior climate control system shall introduce air into the coach at a minimum rate of 25 cubic feet per minute per passenger based on the standard configuration coach with full standee load. This air shall be composed of no less than 15 percent outside air. Airflow shall be evenly distributed throughout the coach with air velocity not exceeding 60 feet per minute on any passenger.

Airflow may be reduced to 15 cubic feet per minute per passenger when operating in the heating mode with full standee load. Heated air introduced into the coach shall contain no less than 15 percent outside air. In the heating mode, the fans will activate immediately to assure an air outlet temperature of 70°F. Outside airflow may be cut off during initial warm up/cool down, provided that manual manipulation is not required.

TS 7.7.3.2 DRIVER'S AREA

The coach interior climate control system shall deliver at least 200 cubic feet per minute of air to the driver's area when operating in the ventilating and cooling modes. Adjustable nozzles shall permit variable distribution or shut down of the airflow. A separate heater or windshield defroster unit shall be capable of diverting heated air to the driver's feet and legs. The defroster motor shall be a permanent magnet type motor. The defroster or interior climate control system shall maintain visibility through the driver's side window. A separate evaporator, fan and control shall supply conditioned air to the driver's area.

TS 7.7.3.3 AIR INTAKE

Outside openings for air intake shall be located to ensure cleanliness of air entering the climate control system, particularly with respect to exhaust emissions from the coach and adjacent traffic. All intake openings shall be baffled to prevent entry of snow, sleet, or water.

Outside air shall be filtered before discharge into the passenger compartment. More efficient air filtration may be provided to maintain efficient heater and/or evaporator operation. The air filter shall be easily removed for service. Moisture drains from air intake openings shall be located so that they will not be subjected to clogging from road dirt, but shall be accessible for cleaning and inspection.

TS 7.8 CAMERA SURVEILLANCE SYSTEM

Bus Manufacturer to provide all wiring and mounting locations for a multi-camera surveillance system including the installation of cameras, recorder, microphone, etc.

The DVR shall be mounted in a secure enclosure. All fuses, and breakers related to the video surveillance system shall be located within this same enclosure. This will ensure that the operation of the video surveillance system will not be interrupted by accidental removal of fuses and or disconnecting the wiring from the breaker. The secure enclosure must have keys whose only purpose is for authorized personnel to gain access to the video surveillance system fuses, breakers, DVR and any other system related hardware. These keys will not function for any other enclosure on the vehicle. Space and both constant and switched 12/24v power for a Digital Video Recorder shall be provided.

For standardization purposes, each bus shall be equipped with the latest model digital video recording system. This system shall include dual mode (WiMax/WiFi) wireless communication devices and software to allow the wireless download of all tagged or requested digital images with the associated audio as well as the ability to allow WiFi connection from a device that is properly setup with the correct security access keys for live look-in and listen-in from a relatively close proximity (e.g. laptop computer).

Vendor shall provide Wi-Fi Antenna (Laird Technologies PA 24-19, or approved equal) behind the bus for Live-Look-In.

The number of cameras for buses 45-feet in length shall be 10 cameras. The placement of cameras will be determined by BCT management during the preproduction meeting; however, the DVR must support a minimum of 16 cameras. The system shall have the characteristics as follows:
All of the requirements of this paragraph must be met without deviation. The successful vendor must provide documentation to support that their system has been supported for a period of not less than seven years. The successful vendor must provide spare parts for the life of the proposed system but in no event for a period of less than 12 years. The successful vendor must provide supporting documentation of their system reliability in a transit environment with a minimum of 10 reference transit agency listings. The system bid shall meet all of the following criteria unless a specific item is requested and approved by Broward County Transit (BCT) as an approved equal. The successful vendor must provide a written statement to support the equipment for the 12-year service life of a transit vehicle. The system bid must also contain adequate spares as determined in conjunction with the component manufacturer(s). The spare equipment must be delivered with the first bus and included in the price of the vehicles as proposed.

Description of the DVR:
The system shall be designed as an application-specific, vehicular-based digital video image capture, storage, and retrieval and transmission system. At a minimum, the DVR shall have a digital video

imaging processor with a minimum of a two TB fixed disk storage and it shall operate from 18 to 36 VDC (24 volt version) and from 9 to 18 VDC (12 volt version). This system will be wired to the hot side of the battery and incorporate circuitry recommended by the equipment manufacturer to insure safe and normal shutdown procedures of the equipment and prevent voltage spikes from the knife switch.

The proposed system shall be protected inside a rugged outer housing providing both shock and vibration protection and shall be tested in compliance with shock and vibration testing with Mil standard referenced in SAE-J1455 section 202F, 2138, 213A and 202F.

The system shall accept a shock equal to 30g's and remain operational and the system shall comply with section 202F vibration testing. It shall accept a shock equal to 100 g's and remain operational as per section 202F test condition C. All shock and vibration testing must be verified from an accredited laboratory.

The system shall be fully programmable via a laptop computer for programming and testing the DVR and provide live look-in mode through and Ethernet connection.

The system shall provide live audio calibration in addition to wireless cellular capability via the cellular link used by the CAD/AVL system interfacing with an SPM5000 Controller. This wireless link shall allow, upon demand, designated workstations to view live images and listen to live audio on the selected vehicle as required for the safety and security of the employees and passengers aboard that vehicle.

The DVR shall operate from a proprietary, embedded system platform and must have the following features:

1. On-board, real-time clock.
2. Battery-backed-up memory that stores the time, date and all internal programming functions.
3. It shall prevent unauthorized program tampering through the use of a programming lockout feature.

The DVR must meet the following dimensional design criteria:

1. Weigh no more than 15 pounds.
2. Outside dimensions of less than 13.50 x 13.0 x 4.0 inches.
3. The DVR shall support up to 16 75-ohm, 1-volt peak-to-peak composite analogs, video signal inputs, either NTSC or PAL.
4. The DVR shall support any combination of up to 16 video inputs, either Monochrome or color.

The DVR system shall include cameras specifically designed for the system, with the following features as a minimum:

1. The cameras shall be contained within tamper-resistant housings and screws.
2. The forward facing camera shall be of the proper focal length and be mounted in a manner that allows it to capture exactly what the driver is seeing, day or night without interference from the window tint or any other obstruction that may diminish the video quality.

3. Surface mounted or flush mounted.

4. Angled, or square flush-mount styles, or dome style.

5. Die-cast aluminum (interior/exterior).

6. The cameras shall be available in color or monochrome.

The cameras shall include the following lenses:

1. 2.9 mm

2. 4.0 mm

3. 6.0 mm

4. Vari Focal Auto Iris 4mm to 9mm

**The recorder shall accept any cameras 1-volt peak-to-peak signal.

The DVR manufacturer shall install an accelerometer, specifically designed for the system, with the following features at a minimum:

1. Shall respond to changes in acceleration on its X, Y and Z axis.

2. Shall be provided with a cable adapted for termination in the DVR.

3. Shall be adaptable to flat-surface mounting (typically, the frame of the vehicle), in order to minimize vibration.

4. Shall be calibrated to close a circuit at a force of approximately 5 g's.

5. Upon closure will cause the DVR to "tag" the video for a configurable period before and after activation of the sensor.

The DVR shall include a remote video transmission system that supports the following wireless transmission system consisting of, but not limited to:

1. A wireless modem (type to be determined at pre-production meetings) powered by the DVR.

2. A wireless antenna appropriately matched to the wireless system specified.

3. Transmission of images from the DVR to a vehicle within receiving distance of the signal or a central monitoring station based on wireless technology employed.

4. Bi-directional transmission shall be supported, meaning:

    a. The system shall include a rear mounted Hi-Gain flat panel directional antenna, 13db or higher, for the WiFi 802.11 signal.

    b. The driver shall have the ability to send images to a vehicle within receiving distance of the signal or the central station (based on wireless technology employed) by activating a covert alarm.

c. Any authorized remote user shall be able to call up a DVR and request images at any time and view the real time images through a computer from a vehicle or other designated remote location.

The DVR shall incorporate a splashguard to protect wiring from the connection box and the unit.

A separate “event” button with two indicator lights, one red (system not ready) and one green (system ready) to indicate the system status to the driver must be placed in a convenient location to be viewed and accessed when needed.

The covert Silent alarm button for the CAD/AVL system must be wired to the DVR to trigger an event and increase frame rate and tag the video for automatic retrieval.

The DVR shall have the following features:

1. The DVR shall begin image capture at the start-up of the vehicle.
2. The DVR shall continue to function for up to 60 minutes after the ignition has been turned off. The time periods shall be user-adjustable.
3. The DVR shall record video on a removable, internal hard disk drive with a minimum hard disk size of two TB.
4. The DVR shall digitally capture and store images and corresponding vehicle information. All images shall be time and date stamped and includes vehicle identification.
5. The DVR shall be capable of continuous image recording in color for over 10 consecutive weeks of transit vehicle operations.
6. The DVR shall be capable of continuous image recording in monochrome for over four months of transit vehicle operations.
7. Recording rate shall be user-selectable.

The DVR must have various user-selectable image quality (resolution) settings, to include high, medium, standard.

The DVR shall have a programmable capture-rate range, to include the following:

1. 0.25 pps (one picture per second)
2. .5 pps (two pps) (target is 2)
3. .75 pps (two pps) (target is 2)
4. 1 pps (three pps) (target is 3)
5. 2 pps (six pps) (target is 6)
6. 3 pps (from 8 to 9 pps) (target is 9)
7. 4 pps (from 11 to 13 pps) (target is 12)
8. 5 pps (from 13 to 16 pps) (target is 15)

9. 6 pps (from 16 to 20 pps) (target is 18)

10. 7 pps (from 18 to 24 pps) (target is 21)

11. 8 pps (from 22 to 30 pps) (target is 24)

The DVR shall recognize when the available storage capacity is full and automatically begin to purge the oldest data in sequential fashion (FIFO), making room for additional images without operator intervention.

The DVR must support the automatic tagging of images or events. An image or series of images shall be created as an event file when images are recorded due to alarm activation.

By default, the DVR shall protect event files from being overwritten for a minimum of 30 days. This protected time period shall be user-programmable for longer or shorter periods as deemed necessary. The system shall have the capability to permanently protect images so they will never be erased. All tagged images shall be easily copied to compact disc, floppy disc or hard drive.

The DVR shall have the following transmission capabilities, at a minimum:

1. Activation of an alarm on the vehicle causing current images to be transmitted to the main dispatch console(s) for viewing at the same time as they are being captured on the vehicle.

2. The dispatch console(s) initiating a call to a specific vehicle and requesting current images.

3. The dispatch console(s) or other authorized remote user(s) initiating a request to the DVR on a specific vehicle and requesting current images, previously recorded images, or specific DVR system log information.

The DVR must support a user-programmable pre-alarm recording buffer of up to 10 minutes and shall append this buffer to the beginning of all recorded events.

The DVR must support a user-programmable post-alarm recording buffer of up to 10 minutes and shall append this buffer to the end of all recorded events.

The user must be able to play back images smoothly at normal or fast speeds, and in forward or reverse modes, without distortion.

The unit shall provide full media search capabilities for archiving, restoring and playback operations, including but not limited to:

1. Start/stop time filters

2. Start/stop date filters

3. Alarm occurrences

4. Camera number

The DVR must support the following main dispatch console capabilities:

1. Support a required WiMax/WiFi link to a central station including all APis, software and cabling.

At a minimum, the console operator shall be able to do the following with the images transmitted to the central station for viewing:

1. View the images
2. Manipulate (enhance) the images
3. Store the images
4. Cause the DVR to continue recording images

The captured digital images shall be stored as color or monochrome files with a resolution of up to 720 x 243 pixels, displayed at 720 x 486 pixels. Captured images shall be downloaded from the DVR onto a computer located at the main dispatch console or compatible browser software installed as follows:

1 The DVR shall connect through a docking station on a standard desktop PC with Windows 7 as the operating system. Once the DVR has been inserted into the docking station images from the DVR shall be viewed on a monitor and/or transferred to long-term storage, including but not limited to the following:

   a. OAT tapes Floppy
   b. Discs recordable
   c. Cos recordable
   d. DVDs

The DVR must support the following programming capabilities:

1. Display options
2. Camera titling of up to 12 characters
3. Time/date formatting

The DVR must provide image update rates for live and record modes of up to 30 unique pictures per second.

The DVR must support the following alarming capabilities:

1. The DVR must allow for six normally closed inputs, which can be defined a either triggers or alarms.
2. The DVR must support two status outputs, which may be interfaced to the vehicle’s communication system and/or lights.

The DVR must support the following Ethernet communications:

1. The DVR shall not stop recording during any Ethernet access.

2. The DVR shall allow the user to disable all Ethernet access from the menus.

3. The DVR shall allow the user full programming of 100 base T Ethernet parameters, including:

a. IP address

b. Default gateway

c. Sub-net mask

d. Serve DHCP addressing for remote access

The DVR must be provided with remote playback and viewing software which shall support the Windows 7 operating systems and full searching capabilities.

The DVR must have the following additional specifications:

1. Video sampling rate shall be:

   a. 14.2 MHz (NTSC/EIA)
   b. 17.7 MHz (PAUCCIR)

2. Available colors shall be to specification YUV 4:2:2, providing up to 16.8 million colors. There shall be 256 grayscale levels. Horizontal resolution shall be 720 pixels. Vertical resolution shall be 484 active lines NTSC/EIS, 576 active lines PAUCCIR.

Camera inputs:
There shall be a minimum of 16 camera inputs equipped with BNC connectors.

Inputs shall be NTSC/EIA or PAUCCIR compatible. The actual number of cameras and the location for each will be decided during the pre-production meeting. Inputs shall provide signal conditioning as follows:

a. All inputs shall have AGC (automatic gain control)

b. Inputs shall accept video levels from 0.7 to 2.0 volts peak-to-peak

The DVR must support audio recording with following capabilities:

1. Audio recording shall be dual-channel using two separate microphones to provide the greatest audio quality possible using noise cancelling technology, when available, and the audio shall be synchronized with the video. A 12 VDC connection on the audio connector shall support the use of powered microphones. Audio format shall be Dual ChannelG711 (64kb/Sec).

The DVR must support the following additional connections:

1. The DVR shall have at least one DB-9 serial data port for modem communications.

2. The DVR shall have two 20-pin Phoenix connectors for 1/0 connections and camera power connections.

3. The DVR shall have sufficient four-pin Phoenix connectors for the connection of powered and non-powered audio/microphone input signals.

4. Power connections shall be made using a quick disconnect, four-pin Molex connector on the rear of the unit.

The DVR shall incorporate the following electrical specifications.

1. Input voltage: 18 to 36 (on 24-volt version) and 9 to 18 (on 12-volt version)

2. The system shall be self-regulating and internally protected from power surges and spikes with a power rating of 35 W nominal.

The DVR shall incorporate the following mechanical specifications:

1. Weigh no more than 15 pounds.

2. Outside dimensions of less than 13.50 x 13.0 x 4.0 inches.

The DVR shall have an operating temperature range of: 5 to 55 ° Celsius and relative humidity: 90 percent non-condensing.

TS 7.8.1 PUBLIC ADDRESS SYSTEM

A public address system shall be provided on each bus for facilitating radio system and driver-originated announcements to passengers using the most current PA system technology. This system should have the ability to interface with the CAD AVL SPM5000 Controller utilizing the amplifier specified in section 7.9.

TS 7.8.2 SPEAKERS

Interior loudspeakers shall be provided, semi-flush mounted, on alternate sides of the bus passenger compartment, installed with proper phasing. Total impedance seen at the input connecting end shall be 8 Ohms. Mounting shall be accomplished with rivnuts and machine screws. Number of speakers will be identified during the approved equal process based on the size of bus being purchased.

A public address system shall be provided on each bus for facilitating radio system and driver-originated announcements to passengers using the most current PA system technology.

The Public Address Sub-system uses the vehicle’s interior and exterior public address speakers. This system provides the driver the capability to make his own interior and exterior announcements. No additional public address systems shall be required.

The bus’s volume control and speaker select switch shall only affect PA operation when the PTT (Push-to-Talk) button is pushed.

Initial system programming shall be provided by the Proposer.

The system programming package shall be compatible with the existing program in use at BCT facility, or a new programming software package shall be provided to generate message lists and announcement audio for the vehicle's interior and exterior signs. Next Stop audio and visual displays can be created and managed within the software. Runs shall be easily created by combining pre-defined stops using BCT’s AVL program. The programming software shall allow either a direct up-link

to the wireless download system or to a PCMCIA memory card that can be programmed directly from a PC.

The system shall operate reliably within an ambient temperature range of -22 °F to +158 °F (excluding fluorescent lamps that must start when the bus interior temperature reaches 32 °F or higher).

The equipment shall operate in the bus without degradation due to shock and vibration encountered during normal service. All speakers are to be secured with two rivets and two screws for security.

TS 7.8.3 Automatic Passenger Counter

No APC system shall be installed.

TS 7.8.4 Computer Aided Dispatch (CAD) and Automated Vehicle Locator (AVL) Equipment

The CAD AVL specifications for the hardware that is required for each bus is listed below;

- CAD AVL Controller – SPM5000
- Mobile Data Terminal – MDT Touch
- Cabling Hardware for Single Sign-On and Other Onboard Integration and Interface requirements to the CAD AVL Controller (e.g. Infodev, GTT TSP, APC, door sensors, Onboard Camera Surveillance, etc.)
- Yard Management System Ubisense Series 7000 Industrial Tags
- Equipment for Vehicle Component and Driver Behavior Monitoring System
- Radio Control Unit Interface
- Equipment for Mobile Data Communication using Sierra Wireless 3G and 4G LTE Cellular Modem
- Employee ID Card Reader for Single Sign-On
- Battery Backup; if required for the onboard controllers
- Tri Band Mobilemark Antenna
- Amplifier ISR PA470

TS 8 MOBILE RADIO SYSTEM

Bus Manufacturer to provide the following:
Space and both constant and switched 12/24v power for an AVL unit.

Special Wiring for Radio

Vendor shall provide all radio equipment.

The radio and communication system shall include several systems and shall be integrated as per Broward County Transit's overall plan. Equipment shall be provided and installed by Broward County Transit unless otherwise requested. The outline of other equipment provisions are listed under 2.04.09 (A) (3) below.

A. Antenna and Radio Conduits

1. A plastic conduit with an inside diameter of not less than 3/4 inch shall be installed and run from the communication box to designated locations throughout the vehicles. These conduits shall be equipped with a pull wire and be of a different color for each line in the vehicle. They shall be directed as stated below. Each piece shall be of different color and included in the (as built) electrical schematics as stated in this specification.

a. Two sections of this ¾-inch diameter conduit shall run from the main power panel to the radio/equipment compartment, and from the power panel to underneath the instrument panel.

b. Two sections shall run from communication box to the front destination sign area. One for the upper deck and one for the lower deck.

c. Six shall be run from the communication box to six different access plates in the ceiling, locations to be determined at a later date as there are specific distances that antennas need to be placed from one another. These same locations shall have a minimum of a 12 x12 inch ground planes attached to the coach structure. See Section 2.04.09 (3).

2. This conduit shall provide for future installation of coaxial antenna and circuit control cables by the "pull through" method. A pull through wire shall be placed in all of these conduit runs.

3. Along with the antenna conduit, an antenna access panel shall be installed in the ceiling of each coach and with exact locations to be determined at pre-production. These access panels shall be located as close to a roof structural member as practical in order to provide a mounting base for the ground planes. If roof is nonmetallic where radio antenna is to be mounted, a 12 x 12 inch metal plate shall be affixed under roof to provide ground plane for antenna.

4. Other equipment provisions are;

a. (VLU) Vehicle Logic Unit that includes a Global Positioning System (GPS) with receiver.

b. Power Management Device

c. (DDU) Driver Display Unit

d. (ASA) Automatic Stop Annunciation

e. (TSP) Transit Signal Priority

f. UHF radio system for voice/data communication

g. adjustable and sliding shelves

h. lighting in the radio/electronic vox

i. electronics box keys per BCT approval

B. Radio Power Supply

1. Mounted inside the communication box shall be three 8-stud blocks and to one of the terminals on one block shall be attached a 12-volt, 30 amp capacity circuit protected by 30 amp circuit breaker located in main circuit breaker panel. One shall also have a 24 volt supply also protected by a 30 amp breaker in main circuit breaker panel. One shall also have a battery ground terminal. Both the positive side and ground side wires shall be not less than 10-gauge wires.

2. The radio power supply shall be 10-gauge wire and the circuit shall be electronically protected in the event of a reverse current flow.

3. The successful proposer shall supply and install radio equipment in each coach upon build request. Radio hand set shall be mounted to the left side. Radio and all attaching equipment location shall be determined at pre-production meetings.

4. The following systems shall have wiring brought into the communication box and terminated at different posts on one of the terminal strips;

a Speed Signal including odometer readings. Square wave pulse.
b Interior and exterior speakers.
c Passenger counter sensor wiring

d W/C ramp signal
e GPS
f Door signals
g Microphone

C. Following is information regarding the radio equipment that may be purchased and installed by the successful proposer: This is for the main UHF radio. (or approved equals)

1. Motorola Radio Model XPR 4550 (450-512Mhz, 40w, GPS with Connect Plus Operation
2. Motorola Remote Mount Adapter Kit, PMLN5404
3. Model 2 Telephone Handset Kit HMN4098A
4. Low Profile Antenna Antenex GPSD4501SP3-TL1
5. Motorola 5M Remote Cable Kit (PMKN4073A)

TS 8.1 Drivers Speaker

Each bus shall have a recessed speaker in the ceiling panel above the driver. This speaker shall be the same component used for the speakers in the passenger compartment. It shall have 8 ohms of impedance.

TS 8.2 Handset

The Bus Manufacturer will install a driver's handset Motorola Model 2 Telephone Handset Kit HMN4098A for driver use or approved equal.

TS 8.3 Driver Display Unit (DDU)

The Bus Manufacturer shall install a driver display unit as close to the driver's instrument panel as possible.

TS 8.4 Emergency Alarm

The Bus Manufacturer shall provide an emergency alarm that is accessible to the driver but hidden from view. Location of this switch to be identified during pre-production process.

TS 8.5 Traffic Signal Priority

BCT is requiring the successful vendor to deliver the vehicles with the GPS product installed to facilitate Signal Priority for buses. This product will be installed with an interface to BCT approved AVL System to request a green light extension based upon BCT criteria. The successful bidder must be able to assure BCT that this subsystem shall be qualified by the OEM to be added to the onsite extended maintenance program already in place for this equipment. BCT's policy is to add this subsystem to our maintenance agreement for five years of onsite support with options for an additional five years of support should BCT elect to pursue those extensions.

An adequate spare ratio must be provided as determined in conjunction with the component manufacturer. An adequate spare ratio is defined as 20% of the core components of the system.

Placement of equipment requiring operator input and/or interaction shall be installed and positioned with due consideration to ergonomics and human factors. The final placement of all equipment requiring operator input and/or interaction shall be approved by BCT inspectors prior to acceptance.

The Transit Signal Priority equipment will be integrated to BCT CAD AVL System to facilitate conditional TSP to operate.

TS 8.6 Vehicle Acceptance Test Procedure

All vehicles shall undergo a multi-part Vehicle Acceptance Test Procedure (VATP) as documented by CAD/AVL System manufacturer and BCT. The initial or first part of testing shall be performed at the vehicle manufacturer's facility prior to the coach being authorized for shipment.

The testing shall confirm that all of the required communication equipment is new, installed and completely functional. The second part is the In-Vehicle equipment test of the Handset/Microphone, voice and data communication device(s), Odometer Transducer, GPS and all Antennas, Operator Control Unit (OCU), Internal and External Speakers, Voice Announcements, sensors, and, Internal and External Message/Destination Displays etc.. The purpose is to test the installation and function of the in-vehicle equipment as well as the interconnecting wiring and cabling. This test shall be conducted by BCT IT personnel and a dispatcher on a CAD/AVL workstation before the vehicle is placed in regular revenue service. All equipment and programming of the CAD/AVL systems shall be interchangeable and fully compatible with the systems currently in use at BCT.

The third part of the VATP consists of a Route Schedule Adherence Test (RSA, an Enunciator Test, and data transmission test between base stations and vehicles. Successful completion of these tests will confirm that all data transmission and location triggers are acceptable to BCT. This phase of testing may be undertaken when the vehicle has been placed in regular revenue service. Testing must take place prior to final acceptance.

The fourth part of the VATP consists of testing the TSP system to ensure that when a vehicle is operating within the parameters that were agreed upon to trigger the system that the extended and early green light features are tested.

The fifth part of the VATP consists of testing the interfaces between the vehicle and the maintenance system using the AVM features and launching a preliminary work order.

The sixth part of the VATP consists of testing the WLAN, WiMax/WiFi and cellular interfaces between the CAD AVL, voice announcements and head sign systems) camera systems and the storage server. Any other tests that may be required to ensure the full and proper functionality of all of these subsystems will be performed at the discretion of the agency.

Within 24 hours of notification of a defect the Bus Manufacturer shall correct those items which have not passed the VATP and resubmit for testing.

Placement of equipment requiring operator input and or interaction should be installed and positioned with due consideration to ergonomics and human factors.

WARRANTY REQUIREMENTS
WR 1 BASIC PROVISIONS

WR 1.1 Warranty Requirements

Warranty will go into effect based on the date of acceptance on each Coach. That date shall be the date that the Coach is found acceptable for revenue service as determined by BCT.

The warranty shall cover 100 percent of the cost of warranty repair, towing, replacement, shipping,

handling, parts and labor, beginning on the date of acceptance of each coach for a period of two years.

Transportation charges to and from the authorized warranty repair facility shall be paid by BCT at the time the vehicle is picked up or delivered and charged back to the manufacturer through a warranty claim.

WR 1.1.1 Coach Manufacturer Warranty

Warranties in this document are in addition to any statutory remedies or warranties imposed on the Coach Manufacturer. The Coach Manufacturer is totally responsible for all warranty claims. Consistent with this requirement, the Coach Manufacturer warrants and guarantees to BCT each complete Coach and specific subsystems and components as follows (to include spare components).

WR 1.1.2 Complete Coach

The complete Coach, propulsion system, components, major subsystems and body and chassis structure are warranted to be free from Defects and Related Defects for one year or 100,000 miles whichever comes first, beginning on the date of revenue service but no longer than 15 days after acceptance under 'Inspection, Testing and Acceptance' . The warranty is based on regular operation of the Coach under the operating conditions prevailing in the South Florida area.

The manufacturer warrants the vehicles shall be of good material and workmanship and agrees to promptly replace any part or parts, at no cost to Broward County Transit, which by reason of defective materials or workmanship fail under normal use, free of negligence or accident, for a minimum period of two years or 100,000 miles from the date of acceptance. Such replacement shall be free of any charge to Broward County Transit. If such failures take place outside the dealer's service area, the vendor shall be responsible for reimbursing the nearest authorized dealer for services rendered under this warranty. Warranty coverage shall begin when the vehicle is accepted and certified ready for service by BCT, not on the date of its delivery. Any subsystems or components not listed below will be covered by the manufactures specified warranty coverage.

WR 1.1.3 Body and Chassis Structure

Body, body structure, structural elements of the suspension and engine cradle is warranted to be free from Defects and Related Defects for 12 years or 500,000 miles whichever comes first.

Primary load-carrying members of the Coach structure, including structural elements to the suspension, are warranted against corrosion failure and/or Fatigue Failure sufficient to cause a Class 1 or Class 2 Failure for a period of 12 years or 500,000 miles, whichever comes first.

Class 1: Physical Safety. Mean mileage shall be greater than 1,000,000 miles (1,609,000.00km).
Class 2: Road Call. Mean mileage shall be greater than 20,000 miles (32,180.00km).
Class 3: Coach Change. Mean mileage shall be greater than 16,000 miles (25,744km).
Class 4: Bad Order. Mean mileage shall be greater than 10,000 miles (16,090km).
Class 5: Major Failure. Mean mileage shall be at least 100,000 miles (160,900km).

WR 1.1.4 Propulsion System

Propulsion system components, specifically the engine, transmission and drive and non-drive axles shall be warranted to be free from Defects and Related Defects for Five years, or 300,000 miles, whichever comes first.

Transportation charges to and from the authorized warranty repair facility shall be paid at the time the vehicle is picked up or delivered by the Coach manufacturer.

During this warranty period, the coach shall maintain its structural and functional integrity. The warranty shall be based on regular operation of the coach under the operating conditions prevailing in BCT locale and will start from the in-service date of each Coach received.

WR 1.1.5 Emission Control System (ECS)

The Coach Manufacturer warrants the emission control system for five years or 100,000 miles, whichever comes first. The ECS shall include, but is not limited to, the following components:

- complete exhaust system, including catalytic converter (if required)
- after-treatment device
- components identified as emission control devices

WR 1.1.6 Subsystems

Other subsystems shall be warranted to be free from Defects and Related Defects as noted below, but in no event will any warranty be less than one year on parts and labor. Other subsystems are listed below and unless stated otherwise, are for parts and labor.

	Years	Mileage
Engine	5	300,000 Parts and Labor
Air Compressor	2	Unlimited Parts and Labor
Fuel Injection/ and or control system components	5	Unlimited Parts and Labor
Alternator and Regulator	3	100,000 Parts and Labor
Starter	2	100,000 Parts and Labor
Transmission	5	300,000 Parts and Labor
Transmission Cooler	5	300,000 Parts and Labor
Front and Drive Axles	5	300,000 Parts and Labor
Differential	5	300,000 Parts and Labor
Radiator and Charge Air Cooler	3	150,000 Parts and Labor
Driver Seat Frame	3 1	150,000 Moving Parts Fabric/Foam Parts Only
Passenger Seating	2 5	Unlimited Parts/Labor Parts Only
Batteries	2	1Yr Unlimited Mile 1Yr Pro-Rate
Basic Body Wiring	2	Unlimited Parts and Labor
Multiplex Electrical System	4	Unlimited Parts and Labor
Camera System	5	Unlimited Parts and Labor
LED Lights	12	Parts Only
Destination Signs and Annunciator System	2	100,000 Parts and Labor
Air Conditioning Generator	3	300,000 Parts and Labor

Air Conditioning Compressor	3	300,000 Parts and Labor
HVAC Evaporator Motors	3	300,000 Parts and Labor
Wheelchair Lift	2	Unlimited Parts and Labor
Sub Floor and Flooring	12	Unlimited Parts and Labor
Structural Integrity and Corrosion	12	500,000 Parts and Labor
Springs and hinges – external	1	50,000 Parts and Labor
Exterior Paint	7	Unlimited Parts and Labor
Body Windows (parts and labor against water leakage)	7	Unlimited Parts and Labor
Door and Related controls	3	150,000 Parts and Labor
WABCO Warranty (anti-lock)	2	100,000 Parts and Labor
Brake System excluding friction mat.	2	100,000 Parts and Labor
Air Dryer	2	100,000 Parts and Labor
Fire Suppression System	2	Unlimited
Hydraulic System	2	Unlimited

The warranty on repairs to items or subsystems during the warranty period shall be extended for the time and/or miles of the remaining warranty or the manufacturer's basic warranty, whichever is greater, beginning on the repair/replacement date that the correction was performed. The Coach manufacturer shall forward and honor any warranty offered by the component manufacturer(s), which is longer than required above.

1.1.7 Extended Warranty

BCT requires the following additional subsystems to be warranted to be free from Defects and Related Defects for five years.

Propulsion System: Engine, drive axles shall be warranted to be free from Defects and Related Defects for five years, unlimited miles on parts, labor and towing.

Transmission: Transmission shall be warranted to be free from Defects and Related Defects for five years, unlimited miles on parts, labor and towing.

WR 1.1.8 Serial Numbers

Upon delivery of each Coach, the Coach Manufacturer shall provide a complete electronic list of serialized units installed on each Coach to facilitate warranty tracking. The list shall include, but is not limited to:
Engine
Transmission
Alternator
Starter
A/c compressor and condenser evaporator unit
Drive axle

Power steering unit
Air compressor
Wheelchair Lift
The Coach Manufacturer shall provide updated serial numbers resulting from warranty campaigns. The format of the list shall be approved by BCT prior to delivery of the first production Coach.

WR 1.1.9 Extension of Warranty

If, during the warranty period, repairs or modifications on any Coach are made necessary by defective design, materials or workmanship but are not completed due to lack of material or inability to provide the proper repair for a period of 30 calendar days, the applicable warranty period shall be extended by the number of days equal to the delay period.

WR 1.2 Voiding of Warranty

The warranty shall not apply to the failure of any part or component of the Coach that directly results from misuse, negligence, accident or repairs not conducted in accordance with the Coach Manufacturer-provided maintenance manuals and with workmanship performed by adequately trained personnel in accordance with recognized standards of the industry. The warranty also shall be void if BCT fails to conduct normal inspections on scheduled preventive maintenance procedures as recommended by the Coach Manufacturer's maintenance manuals and if that omission caused the part or component failure. BCT shall maintain documentation, auditable by the Coach Manufacturer, verifying service activities in conformance with the Coach Manufacturer's maintenance manuals.

WR 1.3 Exceptions and Additions to Warranty

The warranty shall not apply to scheduled maintenance items such as filters. Consumable items are only fuel, oil and lubricants.

Items with progressive wear characteristics such as belts, wiper blades, etc. are not excluded from warranty and should not be of poor quality that requires frequent change. The warranty shall not apply to tires, or to any items furnished by BCT such as radios, fare boxes, and other auxiliary equipment, except insofar as such equipment may be damaged by the failure of a part, component, or design for which the Supplier is responsible.

WR 1.3.1 Pass Through Warranty

Warranty for the entire vehicle and its components will be administered through the Coach Manufacturer for the duration of the base warranty period.

WR 1.3.2 Superior Warranty

The Coach Manufacturer shall pass on to BCT any warranty offered by a component supplier that is superior to that required herein. The Coach Manufacturer shall provide a list to BCT noting the conditions and limitations of the Superior Warranty not later than the start of production. The Superior Warranty shall be administered through the Coach Manufacturer or the component manufacturer.

WR 1.4 Fleet Defects

WR 1.4.1 Occurrence and Remedy

For Coach orders of 20 Coaches or more, fleet defects shall be defined as the failure of the same component on more than 10 percent of the total number of each type of vehicle purchased under each order in this contract. For orders of 19 and less, the percentage will be 20 percent.

For the purpose of Fleet Defects, each option order shall be treated as a separate Coach fleet. In addition, should there be a change in a major component within either the base order or an option order; the Coaches containing the new major component shall become a separate Coach fleet for the purposes of Fleet Defects.

Upon determination that a fleet defect exists, the Coach Manufacturer will be notified by BCT maintenance warranty division. This notice shall be communicated by letter or electronic media.

When a Fleet Defect is declared, the remaining warranty on that item/component stops. The warranty period does not restart until the Fleet Defect is corrected beginning on the repair/replacement date for the correction on the last Coach in the fleet covered by the warranty of this contract. If the fleet defect failure reoccurs during this period the fleet defect status will again be applied until there is no reoccurrence.

In the event that, during the warranty period, specific repairs or modifications necessitated by defects in design, material or workmanship are required, the Coach Manufacturer shall promptly furnish all necessary labor and material to effect those repairs or modifications to all vehicles and spare parts purchased under this Contract.

The Coach Manufacturer shall be totally responsible for the correction of all fleet defects. BCT will make the Coach available to the Coach Manufacturer upon timely notice.

After correcting the Defect, BCT and the Coach Manufacturer shall mutually agree to and the Coach Manufacturer shall promptly undertake and complete a work program reasonably designed to prevent the occurrence of the same Defect in all other Coaches and spare parts purchased under this contract.

Where the specific Defect can be solely attributed to particular identifiable part(s), the work program shall include redesign and/or replacement of only the defectively designed and/or manufactured part(s). In all other cases, the work program shall include inspection and/or correction of all of the Coaches in the fleet via a mutually agreed to arrangement.

The Coach Manufacturer shall update, as necessary, technical support information (parts, service and operator's manuals) due to changes resulting from warranty repairs. BCT may immediately declare a Defect in design resulting in a safety hazard to be a Fleet Defect. The Coach Manufacturer shall be responsible to furnish, install and replace all defective units.

WR 1.4.2 Exceptions to Fleet Defect Provisions

The Fleet Defect warranty provisions shall not apply to BCT supplied items, such as tires, where applicable. Fleet defect warranty provisions shall not apply to damage that is a result of normal wear and tear in service to such items as seats, floor covering, windows, interior trim and paint.

WR 2 REPAIR PROCEDURES

The Coach Manufacturer warrants that whenever any change is required to strengthen or correct a defect or deficiency of the Coaches, this correction would be made for all of the Coaches in the fleet where said defect or deficiency exists, at the Coach Manufacturer's expense.

WR 2.1 Repair Performance

The Coach Manufacturer is responsible for all warranty-covered repair Work during the base warranty period.

To the extent practicable, BCT will allow the Coach Manufacturer or its designated representative to perform such Work. At its discretion, BCT may perform such Work if it determines it needs to do so based on transit service or other requirements. Such Work shall be reimbursed by the Coach Manufacturer.

WR 2.2 Repairs by the Coach Manufacturer

If BCT detects a Defect within the warranty periods defined in this section, it shall, within two calendar days, notify the Coach Manufacturer's designated representative. The Coach Manufacturer or its designated representative shall, if requested, begin work on warranty-covered repairs within two calendar days after receiving notification of a Defect from BCT.

BCT shall make the Coach available to complete repairs timely with the Coach Manufacturer's repair schedule. The component may be removed and examined at BCT property or at the Proposer's plant. BCT and Proposer shall mutually agree upon whether the defect is one covered by the warranty. If no agreement is obtained within a five calendar day period, BCT reserves the right to charge $200.00 per day, per coach for all failures from the date of failure notification until the defect is corrected and the vehicle is placed back in revenue service. Work necessary to affect the repairs shall commence within two working days after receipt of notification by the Proposer.

If the Coach is removed from BCT property, repairs must be completed by the Manufacturer's representative within an "agreed to" time frame. This time frame will be mutually agreed to in writing by the Manufacturer and BCT"s Warranty Department. Liquidated damages of $100.00 per calendar day will be assessed if the Coach remains out of service for longer than the "agreed to" time.

WR 2.3 Repairs by BCT

Repairs made by BCT shall not void the warranty of the Coach, component or sub component unless the Warranty Requirements of the contract are violated.

WR 2.3.1 Parts Used

If BCT performs the warranty covered repairs, it shall correct or repair the defects and any related defects using manufacturer's specified parts available from its own stock or those supplied by the manufacturer specifically for this repair under the supervision of the Manufacturer's representative. Monthly or at a period to be mutually agreed upon, reports of all repairs covered by this warranty shall be submitted by BCT for reimbursement.

WR 2.3.2 Coach Manufacturer Supplied Parts

BCT may request that the manufacturer supply parts for warranty covered repairs being performed by BCT. These parts shall be shipped prepaid to BCT from the source selected by the manufacturer within five calendar days of receipt of the request for said parts. Parts supplied by the Coach Manufacturer shall be Original Equipment Supplier (OEM) equivalent or superior to that used in the Coach original manufacture. Any Coach waiting for parts for more than five calendar days after notification will be assessed liquidated damages at $100.00 per calendar day for each day the Coach is out of service, unless there is an agreement to a different time frame between the supplier and BCT Warranty Department on a case by case basis. The liquidated damages will be submitted on a Warranty Request form. In emergency situations warranted parts shall be shipped to the Procuring Agency by overnight express.

WR 2.3.3 Defective Component Return

The Coach Manufacturer may request that parts covered by the warranty be returned to the manufacturing plant. The freight costs for this action shall be paid by the Coach Manufacturer. The parts not returned will be held for a period of 90 days, at which time will become the property of BCT and may be disposed of. Parts returned and claims for repayment shall use the manufacturers Application for Adjustment (AFA) forms and parts tags. BCT shall be reimbursed by the manufacturer for labor and overhead costs associated with the warranty work accomplished.

The Proposer warrants that whenever any change is required to strengthen or correct a defect or deficiency of the Coaches, this correction would be made for all of the Coaches in the fleet where said defect or deficiency exists at the Proposer's expense. Materials should be returned in accordance with the procedures outlined in “Warranty Processing Procedures.”

WR 2.3.4 Failure Analysis

The Coach Manufacturer shall, upon specific request of BCT, provide a failure analysis of Fleet Defect or safety-related parts, or major components, removed from Coaches under the terms of the warranty that could affect fleet operation. Such reports shall be delivered within 60 days of the receipt of failed parts.

WR 2.3.5 Reimbursement for Labor and Other Related Costs

BCT shall be reimbursed by the Coach Manufacturer for labor. The amount determined by BCT for a qualified mechanic at wage rate of $95.00 per hour, which includes fringe benefits and overhead adjusted for BCT’s most recently published rate in effect at the time the Work is performed, plus the cost of towing the Coach if such action was necessary and if the Coach was in the normal service area.

The cost of towing the Coach shall be reimbursed if such action was necessary and the Coach was in the normal service area even if the failure is not safety related. All service calls and swap off that pertain to a warranty claim will be reimbursed to BCT at a charge of one hour each. If the repairs are not made on the street, the service call, swap off, towing and time for warranted repairs will be reimbursed. Towing will be charged at the current towing contract price at the time of failure. If the repairs require the Coach to be removed from BCT property the towing and/or Operator time will be reimbursed to BCT.

BCT will have the option of being reimbursed by payment by check (Payee: Broward County Transit) or parts credit.

WR 2.3.6 Reimbursement for Parts

BCT shall be reimbursed by the Coach Manufacturer for defective parts and for parts that must be replaced to correct the Defect out of BCT’s inventory. The reimbursement shall be at the current price at the time of repair and shall include taxes where applicable, plus 20 percent handling costs. Handling costs shall not be paid if part is supplied by Coach Manufacturer and shipped to BCT.

BCT may request that the Proposer supply new components or parts necessary for warranty-covered repairs being performed by BCT or authorized representative. These parts shall be shipped prepaid to BCT from any source selected by the Proposer within five working days of the request for said parts.

The successful Proposer shall deliver all warranty parts orders to BCT or authorized representative, "F.O.B. Destination," freight included. Expedited "rush" orders placed by BCT for a "Coach down," shall

require the Proposer to prepay the costs for expedited (air express) delivery. Requests for exceptions to the delivery requirements stated above must be approved by BCT.

WR 2.3.7 Reimbursement Requirements

The Coach Manufacturer shall respond to the warranty claim with an accept/reject decision including necessary failure analysis no later than 30 days after BCT submits the claim and defective part(s), when requested. Reimbursement for all accepted claims shall occur no later than 60days from the date of acceptance of a valid claim. If there is no response within the 60 calendar days, either by denial or acceptance, the claim will be considered valid and the outstanding amount will be deducted from invoices due the Coach Manufacturer. Claim payment may be by check or credit.

BCT may dispute rejected claims or claims for which the Coach Manufacturer did not reimburse the full amount. The parties agree to review disputed warranty claims during the following quarter to reach an equitable decision to permit the disputed claim to be resolved and closed. The parties also agree to review all claims at least once per quarter throughout the entire warranty period to ensure that open claims are being tracked and properly dispositioned.

WR 2.4 Warranty after Replacement/Parts

If any component, unit or subsystem is repaired, rebuilt or replaced by the Coach Manufacturer or by BCT with the concurrence of the Coach Manufacturer, the component, unit or subsystem shall have the unexpired warranty period of the original. Repairs shall not be warranted if the Coach Manufacturer provided or authorized parts are not used for the repair, unless the Coach Manufacturer has failed to respond within five days, in accordance with “Repairs by the Coach Manufacturer.”

Any component, unity or sub-system repaired, rebuilt or replaced by the Coach Manufacturer or by BCT’s personnel shall have the unexpired warranty period of the original component, unit or sub-system or the manufacturer’s basic warranty, whichever is greater.

WR 2.4.1 Warranty Processing Procedures

The following list represents requirements by the Coach Manufacturer to BCT for processing warranty claims. One failure per Coach per claim is allowed.

- Coach number and VIN
- total vehicle life mileage at time of repair
- date of failure/repair
- acceptance/in-service date
- Coach Manufacturer part number and description
- component serial number
- description of failure
- all costs associated with each failure/repair (invoices may be required for third-party costs):
- towing
- road calls
- labor
- materials
- parts
- handling
- troubleshooting time
-

WR 2.5 Forms

The Supplier must supply BCT Warranty Department with all documents necessary for the filing of warranty claims. The documents will be delivered in conjunction with the delivery of the first Coach. In the event that the Coach Manufacturer does not supply claim forms as stated above, the Coach Manufacturer agrees to honor BCT supplied claim forms.
BCT's forms will be accepted by the Coach Manufacturer if all of the above information is included. Electronic submittal may be used if available between the Coach Manufacturer and BCT.

WR 2.6 Return of Parts

When returning defective parts to the Coach Manufacturer, BCT shall tag each part with the following:

- Coach number and VIN
- claim number
- part number
- serial number (if available)
-

WR 2.7 Timeframe

Each claim must be submitted no more than 30 days from the date of failure and/or repair, whichever is later. All defective parts must be returned to the Coach Manufacturer, when requested, no more than 45 days from date of repair.

WR 2.8 Reimbursements

Reimbursements to BCT shall be in the form of parts credits or check (Payee: Broward County Transit) at the discretion of BCT.

QUALITY ASSURANCE

QA 1 IN-PLANT QUALITY ASSURANCE REQUIREMENTS

QA 1.1 Quality Assurance Organization

QA 1.1.1 Organization Establishment

The Coach Manufacturer shall establish and maintain an effective in-plant quality assurance organization. It shall be a specifically defined organization and should be directly responsible to the Coach Manufacturer's top management.

QA 1.1.2 Control

The quality assurance organization shall exercise quality control over all phases of production, from initiation of design through manufacture and preparation for delivery. The organization shall also control the quality of supplied articles.

QA 1.1.3 Authority and Responsibility

The quality assurance organization shall have the authority and responsibility for reliability, quality control, inspection planning, establishment of the quality control system, and acceptance/rejection of materials and manufactured articles in the production of the transit Coaches.

QA 1.2 Quality Assurance Organization Functions

QA 1.2.1 Minimum Functions

The quality assurance organization shall include the following minimum functions:

- **Work instructions:** The quality assurance organization shall verify inspection operation instructions to ascertain that the manufactured product meets all prescribed requirements.
- **Records maintenance:** The quality assurance organization shall maintain and use records and data essential to the effective operation of its program. These records and data shall be available for review by the resident inspectors. Inspection and test records for this procurement shall be available for a minimum of three years after inspections and tests are completed.
- **Corrective action:** The quality assurance organization shall detect and promptly ensure correction of any conditions that may result in the production of defective transit Coaches. These conditions may occur in designs, purchases, manufacture, tests or operations that culminate in defective supplies, services, facilities, technical data or standards.

QA 1.2.2 Basic Standards and Facilities

The following standards and facilities shall be basic in the quality assurance process:

- **Configuration control:** The Coach Manufacturer shall maintain drawings, assembly procedures, and other documentation that completely describe a qualified Coach that meets all of the options and special requirements of this procurement. The quality assurance organization shall verify that each transit Coach is manufactured in accordance with these controlled drawings, procedures, and documentation.
- **Measuring and testing facilities:** The Coach Manufacturer shall provide and maintain the necessary gauges and other measuring and testing devices for use by the quality assurance organization to verify that the Coaches conform to all specification requirements. These devices shall be calibrated at established periods against certified measurement standards that have known valid relationships to national standards.
- **Production tooling as media of inspection:** When production jigs, fixtures, tooling masters, templates, patterns, and other devices are used as media of inspection, they shall be proved for accuracy at formally established intervals and adjusted, replaced, or repaired as required to maintain quality.
- **Equipment use by resident inspectors:** The Coach Manufacturer’s gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the Coaches conform to all specification requirements. If necessary, the Coach Manufacturer’s personnel shall be made available to operate the devices and to verify their condition and accuracy.

QA .1.2.3 Maintenance of Control

The Coach Manufacturer shall maintain quality control of purchases:

- **Supplier control:** The Coach Manufacturer shall require that each Supplier maintains a quality control program for the services and supplies that it provides. The Coach Manufacturer's quality assurance organization shall inspect and test materials provided by Suppliers for conformance to specification requirements. Materials that have been inspected, tested, and approved shall be identified as acceptable to the point of use in the manufacturing or assembly processes. Controls shall be established to prevent inadvertent use of nonconforming materials.
- **Purchasing data:** The Coach Manufacturer shall verify that all applicable specification requirements are properly included or referenced in purchase orders of articles to be used on transit Coaches.

QA 1.2.4 Manufacturing Control

- **Controlled conditions:** The Coach Manufacturer shall ensure that all basic production operations, as well as all other processing and fabricating, are performed under controlled conditions. Establishment of these controlled conditions shall be based on the documented Work instructions, adequate production equipment and special working environments if necessary.
- **Completed items:** A system for final inspection and test of completed transit Coaches shall be provided by the quality assurance organization. It shall measure the overall quality of each completed Coach.
- **Nonconforming materials:** The quality assurance organization shall monitor the Coach Manufacturer's system for controlling nonconforming materials. The system shall include procedures for identification, segregation and disposition.
- **Statistical techniques:** Statistical analysis, tests and other quality control procedures may be used when appropriate in the quality assurance processes.
- **Inspection status:** A system shall be maintained by the quality assurance organization for identifying the inspection status of components and completed transit Coaches. Identification may include cards, tags or other normal quality control devices.

QA 1.2.5 Inspection System

The quality assurance organization shall establish, maintain and periodically audit a fully documented inspection system. The system shall prescribe inspection and test of materials, Work in process and completed articles. As a minimum, it shall include the following controls:

- **Inspection personnel:** Sufficient trained inspectors shall be used to ensure that all materials, components and assemblies are inspected for conformance with the qualified Coach design.
- **Inspection records:** Acceptance, rework or rejection identification shall be attached to inspected articles. Articles that have been accepted as a result of approved materials review actions shall be identified. Articles that have been reworked to specified drawing configurations shall not require special identification. Articles rejected as unsuitable or scrap shall be plainly marked and controlled to prevent installation on the Coach. Articles that become obsolete as a result of engineering changes or other actions shall be controlled to prevent unauthorized assembly or installation. Unusable articles shall be isolated and then scrapped.
- Discrepancies noted by the Coach Manufacturer or resident inspectors during assembly shall be entered by the inspection personnel on a record that accompanies the major component, subassembly, assembly, or Coach from start of assembly through final inspection. Actions shall be taken to correct

discrepancies or deficiencies in the manufacturing processes, procedures or other conditions that cause articles to be in nonconformity with the requirements of the Contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, then BCT shall approve the modification, repair or method of correction to the extent that the Contract specifications are affected.

- **Quality assurance audits:** The quality assurance organization shall establish and maintain a quality control audit program. Records of this program shall be subject to review by BCT.

QA 2 INSPECTION

QA 2.1 Inspection Stations

Inspection stations shall be at the best locations to provide for the Work content and characteristics to be inspected. Stations shall provide the facilities and equipment to inspect structural, electrical, hydraulic and other components and assemblies for compliance with the design requirements.

Stations shall also be at the best locations to inspect or test characteristics before they are concealed by subsequent fabrication or assembly operations. These locations shall minimally include underbody structure completion, body framing completion, body prior to paint preparation, water test, engine installation completion, underbody dress-up and completion, Coach prior to final paint touchup, Coach prior to road test and Coach final road test completion.

QA 2.2 Resident Inspectors

QA 2.2.1 Resident Inspector's Role

BCT shall be represented at the Coach Manufacturer's plant by resident inspectors, as required by FTA. Resident inspectors may be BCT employees or outside contractors. BCT shall provide the identity of each inspector and shall also identify their level of authority in writing. They shall monitor, in the Coach Manufacturer's plant, the manufacture of Over the Road Coaches built under the procurement.

The presence of these resident inspectors in the plant shall not relieve the Coach Manufacturer of its responsibility to meet all of the requirements of this procurement. Coach Manufacturer and resident inspector relations shall be governed by the guidelines included as Attachment A to this "Section 8: Quality Assurance."

QA 2.2.2 Pre-Production Meetings

The primary resident inspector may participate in design review and pre-production meetings with BCT. At these meetings, the configuration of the Coaches and the manufacturing processes shall be finalized, and all Contract documentation provided to the inspector.

No less than 30 calendar days prior to the beginning of Coach manufacture, BCT staff will meet with the Coach Manufacturer's quality assurance manager and may conduct a pre-production audit meeting. They shall review the inspection procedures and finalize inspection checklists. The resident inspectors may begin monitoring Coach construction activities two weeks prior to the start of Coach fabrication.

QA 2.2.3 Authority

Records and data maintained by the quality assurance organization shall be available for review by the resident inspectors. Inspection and test records for this procurement shall be available for a minimum of three years after inspections and tests are completed.

The Coach Manufacturer's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the Coaches conform to all specification requirements. If necessary, the Coach Manufacturer's personnel shall be made available to operate the devices and to verify their condition and accuracy.

Discrepancies noted by the resident inspector during assembly shall be entered by the Coach Manufacturer's inspection personnel on a record that accompanies the major component, subassembly, assembly or Coach from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures or other conditions that cause articles to be in nonconformity with the requirements of the Contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, BCT shall approve the modification, repair or method of correction to the extent that the Contract specifications are affected.

A resident inspector shall remain in the Coach Manufacturer's plant for the duration of Coach assembly Work under this Contract. Only the primary resident inspector or designee shall be authorized to release the Coaches for delivery. The resident inspectors shall be authorized to approve the pre-delivery acceptance tests. Upon request to the quality assurance supervisors, the resident inspectors shall have access to the Coach Manufacturer's quality assurance files related to this procurement. These files shall include drawings, assembly procedures, material standards, parts lists, inspection processing and reports, and records of Defects.

QA 2.2.4 Support Provisions

The Coach Manufacturer shall provide office space for the resident inspectors in close proximity to the final assembly area. This office space shall be equipped with desks, outside and interplant telephones, Internet access, file cabinet and chairs.

QA 2.2.5 Compliance with Safety Requirements

At the time of the Pre-Production meeting, the Coach Manufacturer shall provide all safety and other operational restrictions that govern the Coach Manufacturer's facilities. These issues will be discussed and the parties will agree which rules/restrictions will govern BCT's inspector(s) and any other BCT representatives during the course of the Contract.

QA 3 ACCEPTANCE TESTS

QA 3.1 Responsibility

Fully documented tests shall be conducted on each production Coach following manufacture to determine its acceptance to BCT. These acceptance tests shall include pre-delivery inspections and

testing by the Coach Manufacturer and inspections and testing by BCT after the Coaches have been delivered.

QA 3.2 Pre-Delivery Tests

The Coach Manufacturer shall conduct acceptance tests at its plant on each Coach following completion of manufacture and before delivery to BCT. These pre-delivery tests shall include visual and measured inspections, as well as testing the total Coach operation. The tests shall be conducted and documented in accordance with written test plans approved by BCT. The pre-delivery tests shall be scheduled and conducted with sufficient notice so that they may be witnessed by the Resident Inspectors, who may reject the results of the tests. The results of pre-delivery tests, or any other tests, shall be filed with the assembly inspection records for each coach.

Additional tests may be conducted at the Coach Manufacturer's discretion to ensure that the completed Coaches have attained the required quality and have met the requirements in Section 6: Technical Specifications. BCT may, prior to commencement of production, demand that the Coach Manufacturer demonstrate compliance with any requirement in that section if there is evidence that prior tests have been invalidated by the Coach Manufacturer's change of Supplier or change in manufacturing process. Such demonstration shall be by actual test or by supplying a report of a previously performed test on similar or like components and configuration. Any additional testing shall be recorded on appropriate test forms provided by the Coach Manufacturer and shall be conducted before approving the Coach for shipment.

The under-floor equipment shall be available for inspection by the resident inspectors, using a pit or Coach hoist provided by the Coach Manufacturer. A hoist, scaffold or elevated platform shall be provided by the Coach Manufacturer to easily and safely inspect Coach roofs. Delivery of each Coach shall require written authorization of the primary resident inspector. Authorization forms for the release of each Coach for delivery shall be provided by the Coach Manufacturer. An executed copy of the authorization shall accompany the delivery of each Coach.

QA 3.2.1 Visual and Measured Inspections

Visual and measured inspections shall be conducted with the Coach in a static condition. The purpose of the inspection testing includes verification of overall dimension and weight requirements, that required components are included and are ready for operation, and that components and subsystems designed to operate with the Coach in a static condition do function as designed.

QA 3.2.2 Water Test

Windows, escape hatches, doors, etc. are subject to an approved water test to be conducted at the manufacturers facility by the manufacturer and shall be observed by BCT's Resident Inspector(s). The water test inspection checks the integrity of the vehicle's body seams, window frame seals and other exterior component close-outs for their ability to keep rainwater, road splash, and other exterior water from entering the inside of the vehicle. The vehicle's interior is inspected for signs of moisture and water leaks. Water testing may be verified by further testing at BCT's Maintenance Facility prior to the acceptance of each vehicle if test observation or verification of leak repair is missed or not observed by BCT Inspector on any Coach built for Broward County. Any Coach that fails to pass the water test shall be corrected by the Coach Manufacturer. The retest/corrective repair cycle shall repeat until the leak(s) have been eliminated to BCT's satisfaction.

Water Test Description

1. The roof, roof hatches, front cap, rear cap, sidewalls, passenger windows, driver's windows, destination sign windows, windshields, wheel wells and all doors of all coaches shall be water tested prior to the delivery of each unit to Broward County as follows:

   To perform the leak inspection, interior ceiling and side panels are removed, and access doors are opened. If any moisture or water is detected, the source of the leak will be located and repaired by the manufacturer, and the vehicle will be tested again.

2. The water test shall consist of a series of nozzles which are strategically located around the perimeter of the vehicle so as to spray water over the entire surface of the vehicle.

3. The nozzles shall eject a volume of water no less than 2.5 gallons per minute per nozzle under a pressure of no less than 35 pounds per minute measured at the nozzle tip.

4. The Coach Manufacturer shall be required to water test each vehicle under the conditions described above for no less than 30 minutes in order to determine whether or not there are any body leaks at the window areas, door areas, roof panels etc.

5. Coach Manufacturer shall take the necessary steps of corrective action to repair any leaks found as a result of the described test and shall retest to ensure that corrective steps have been successful. Documentation of each Coach shall be kept by the manufacturer as to the location of the leak, what caused the leak to occur and shall describe the repair action taken to prevent the leak from reoccurring.

6. If the Coach Manufacturer's Coach manufacturing process water test differs from the water test process and criteria described above, then any deviations must be approved by BCT's Project Manager.

QA 3.2.3 Total Coach Operation (Road Test)

Total Coach operation shall be evaluated during road tests. The purpose of the road tests is to observe and verify the operation of the Coach as a system and to verify the functional operation of the subsystems that can be operated only while the Coach is in motion.

The road test inspection shall be performed immediately following the water test to reveal any standing water that may be present due to a leak, but was not noticed during the static water test. Objectionable vibrations, air leakage and other factors that affect ride quality are recorded and reported the vehicle manufacturer for resolution. Vehicle stability, performance, braking and interlock systems, HVAC, and other critical areas are checked to ensure that the vehicle is complete and ready to provide safe and reliable service.

Each Coach shall be driven for a minimum of 15 miles during the road tests. If requested, computerized diagnostic printouts showing the performance of each Coach shall be produced and provided to BCT. Observed Defects shall be recorded on the test forms. The Coach shall be retested when Defects are corrected and adjustments are made. This process shall continue until Defects or required adjustments are no longer detected.

At a minimum, the following tests shall be performed and recorded during the road test:

- Acceleration test
- Top speed test
- Gradability test

- Service brake test
- Parking brake test
- Turning effort test
- Turning radius test
- Shift quality
- Quality of retarder or regenerative braking action

During the road test, a vehicle may be taken to a weight station to record the vehicle's front axle weight, rear axle weight and total vehicle (curb) weight.

QA 3.2.4 Air Conditioning Test

The Coach Manufacturer shall bear the cost and conduct a test of the air conditioning system on the first production Coach of each model with representatives from BCT present to verify the performance of the air conditioning system. The air conditioning system must be capable of meeting the performance standards stated in Section 52, Heating, Ventilating and Air Conditioning, of the technical specifications. The Coach Manufacturer shall be responsible for providing the necessary test equipment for this and all other system tests.

The pre-delivery air conditioning test shall be scheduled with sufficient notice to allow the test to be witnessed by BCT's Resident Inspector. Within twelve hours of the completion of the air conditioning test BCT Inspector will notify the Coach Manufacturer if the Coach passed the air conditioning test. If the Coach fails the test the Coach Manufacturer shall be required to make modifications to all Coaches as necessary to ensure the Coaches meet the air conditioning specifications. After the modifications are complete the Coach Manufacturer shall repeat the test with BCT's Resident Inspector present to verify the success of the modifications. No Coach may leave the Coach Manufacturer's plant until the first production Coach for that model passes the air conditioning test and until the modifications are incorporated into all following Coaches. BCT reserves the right to randomly select other production Coaches for testing of the air conditioning system if it believes the Coach Manufacturer has changed the system or the installation in the Coach.

QA 3.2.5 Post Delivery Testing

BCT will conduct acceptance tests on each Coach at time of delivery. These tests shall be completed within 15 days after Coach delivery and shall be conducted in accordance with BCT test plans. The purpose of these tests is to identify defects that have become apparent between the time of the Coach release and delivery to Broward County. The post-delivery tests shall include visual inspection and Coach operations similar to those conducted at the plant.

Upon delivery, each of the following systems will have an "in service" inspection performed by the coach and component manufacturers prior to acceptance: engine, transmission, HVAC, camera, windows and destination sign.

Coaches that fail to pass the post-delivery tests are subject to acceptance, conditional acceptance or rejection. BCT shall record details of all defects on the appropriate test forms and shall notify the Manufacturer of acceptance, conditional acceptance or rejection of each Coach after completion of the tests.

Any visual delivery damage will be identified and recorded during the visual inspection. Coaches with delivery damage will either be conditionally accepted or rejected. The defects detected during these tests shall be repaired according to procedures defined in the specifications, contract, and accepted proposal.

Final acceptance for conditionally accepted or rejected Coaches will only take place after all testing has been completed and the coach has successfully completed 40 hours of revenue service without failure of any component on the vehicle.

QA 4 Special Provisions

QA 4.1 Repairs after Non-Acceptance

The Coach Manufacturer, or its designated representative, shall perform the repairs after non-acceptance. If the Coach Manufacturer fails or refuses to begin the repairs within five days, the coach will be rejected or the Work may be done by the Agency's personnel with reimbursement by the Coach Manufacturer.

QA 4.2 Repair Performance

QA 4.2.1Repairs by Coach Manufacturer

After non-acceptance of the Coach, the Coach Manufacturer must begin Work within five working days after receiving notification from the Agency of failure of acceptance tests. The Agency shall make the Coach available to complete repairs timely with the Coach Manufacturer repair schedule.

The Coach Manufacturer shall provide, at its own expense, all spare parts, tools and space required to complete the repairs. At the Agency's option, the Coach Manufacturer may be required to remove the Coach from the Agency's property while repairs are being made. If the Coach is removed from the Agency's property, repair procedures must be diligently pursued by the Coach Manufacturer's representatives, and the Coach Manufacturer shall assume risk of loss while the Coach is under its control.

QA 4.2.2 Repairs by the Agency

The Agency will not take responsibility to correct Defects, except to replace defective parts as instructed by the Coach Manufacturer.

1. **Parts used.** If the Agency performs the repairs after non-acceptance of the Coach, it shall correct or repair the Defect and any Related Defects using Coach Manufacturer-specified parts available from its own stock or those supplied by the Coach Manufacturer specifically for this repair. Reports of all repairs covered by this procedure shall be submitted by the Agency to the Coach Manufacturer for reimbursement or replacement of parts monthly, or at a period to be mutually agreed upon. The Coach Manufacturer shall provide forms for these reports.
2. **Coach Manufacturer-supplied parts.** If the Coach Manufacturer supplies parts for repairs being performed by the Agency after non-acceptance of the Coach, these parts shall be shipped prepaid to the Agency.
3. **Return of defective components.** The Coach Manufacturer may request that parts covered by this provision be returned to the manufacturing plant. The total costs for this action shall be paid by the Coach Manufacturer.
4. **Reimbursement for labor.** The Agency shall be reimbursed by the Coach Manufacturer for labor. The amount shall be $95 per hour if BCT performs the labor plus a 20 percent handling charge for materials. BCT will have the option of being reimbursed by check payment (Payee – Broward County Transit) or parts credit.
5. **Reimbursement for parts.** The Agency shall be reimbursed by the Coach Manufacturer for defective parts that must be replaced to correct the Defect. The reimbursement shall include taxes where applicable and 20 percent handling costs.

6. **Warranty**. If any warranted component, unit, or subsystem is repaired, rebuilt or replaced with the concurrence of the manufacturer, the subsystem shall have either the manufacturer's basic warranty or the unexpired warranty period of the original subsystem, whichever is greater.

SP SPECIAL PROVISIONS

SP 1 Coach Deliveries

Delivery of Coaches shall be determined by signed receipt of BCT designated agent(s), at the following point(s) of delivery and will be preceded by a cursory inspection of the Coach: 3201 West Copans Road, Pompano Beach, Florida 33069

SP1.1 Delivery Schedule

The Coaches shall be delivered at a rate not to exceed five Coaches per week. Delivery shall be completed within 40 weeks after delivery of the executed Purchase Order. Hours of delivery shall be between the hours of 8:00 a.m. and 4:00 p.m. on the following days of the week: Monday thru Friday.

SP 2 MANUALS

SP 2.1 Maintenance Manuals

The Coach Manufacturer shall furnish loose-leaf "AS BUILT' maintenance manuals, as noted below, containing complete data required for routine and periodic maintenance of BCT specific Coaches, including general vehicle information, specifications, a troubleshooting guide, lubrication and adjustment requirements, wire and cable sizes and ratings, wiring and schematic diagrams, and engine data. The maintenance manuals shall contain illustrative drawings such as isometrics or exploded views and photographs, identifying major components in relationship to each other as mounted on the Coach. The maintenance manuals and operator's manuals shall incorporate all equipment ordered on the Coach covered by this procurement.

Unless otherwise stated, Contractor will provide one draft copy of all literature identified below prior to delivery of the first production bus. It is anticipated that final manuals will be drafted during the manufacture of the Coaches. Manuals will reflect any and all engineering changes that are made during the course of manufacture. Final manuals shall be delivered prior to delivery of the last Coach and the acceptance of delivered manuals shall be a condition for acceptance of the last Coach.

NOTE: The cost of manuals will not be included in the price of the Coach. Each series of manuals are listed as an optional item and shall be priced separately for BCT to make final selection of optional manuals at time of each Coach order.

Vehicle Service/Maintenance (45' Coach) (5)
Shop Level As Built Repair Manuals – Engine (45' Coach) (5)
Shop Level As Built Repair Manuals – Transmission (45' Coach) (5)
As Built Electrical/Schematics 45' Coach (5)
As Built Electronic/Schematics 45' Coach (5)
As Built Air Schematics 45' Coach (5)
As Built Parts Manuals 45' Coach (5)
Parts Cross Reference Manual 45' Coach (4)
OEM Engine Manual 45' Coach (4)
OEM Transmission Manual 45' Coach (5)

OEM Destination Sign Manual (5)
OEM Wheelchair Lift Manual (5)
OEM HVAC Manual 45' Coach (5)
Professionally Prepared Mechanics "Coach Orientation" Training Video 45' Coach (2)
As Built Operators Manuals (10)
Flat Rate Manual to cover each element of vehicle maintenance (45' Diesel), (5 each)

NOTE: In addition to loose-leaf manuals the Coach Manufacturer will provide all the aforementioned manuals on compact disc (CD) (Five Copies) formatted in portable document format.

"As built" electrical diagram shall be provided for all of the electrical equipment. This shall include an interface between components. In addition, separate diagrams for each of the respective wiring circuits such as the interior and exterior lighting circuits, door control, etc. shall be supplied. Complete separation of circuits will involve approximately 15 to 17 drawings (11 x 17 inch minimum) protected to resist grease and dirt and in electronic media PDF format. Ladder Logic charts will be provided for all multiplex systems.

Each diagram page shall be self-explanatory for electrical troubleshooting purposes and shall be formulated to minimize the need to reference other diagrams. An electrical troubleshooting guide in loose leaf pages and electronic media in a PDF format shall be provided which will assist mechanics in diagnosing defects for an electrical circuit.

The Coach Manufacturer shall keep maintenance manuals available for a period of twelve years after the date of acceptance of the Coaches procured under this Contract. The Coach Manufacturer shall also keep all maintenance manuals, operator manuals, and parts books up-to-date for a period of 12 years through the use of quarterly (at a minimum) service bulletins.

SP 2.2 Parts Manuals

Illustrated "AS BUILT" parts books shall be furnished, containing data so that part numbers can be readily found for each system and subsystem assembly, subassembly, or piece part from an overlay breakdown of the complete Coach. Contractor will provide one draft copy of all literature identified below with the delivery of the first Coach of each order. It shall contain a subject and numerical index and be adequately illustrated to identify items requiring repair or replacement. The Coach Manufacturer shall furnish a complete bill of materials of all parts/components used in the assembly of the Coach. This list shall include as minimum, Coach manufacturer's part number, part description, name of original part manufacturer and manufacturer's part/identifying number.

The catalog shall enumerate, describe, and illustrate every component with its related parts including the OEM supplier's number, the Coach Manufacturer's number, and the commercial equivalents. The illustrated parts catalog shall be Coach specific. Cutaway and isometric exploded drawings shall be used to permit identification of all parts. Parts common to different components (as for example bolts, nuts, and washers) shall bear the Coach Manufacturer's part number. Each part or component shall be identified as being part of the next larger assembly.

Following the publication of each manual required herein, the Coach Manufacturer shall provide revisions covering any changes, whether required by change of design or procedures or due to error, and these revisions shall be kept current during the entire basic warranty period. Manual revisions shall be furnished to BCT before or coincidental with the arrival of any altered parts or components. Upon expiration of the basic warranty period, revisions shall be furnished to BCT, free of charge, as required over the 12 year life of the vehicle.

Where the parts ordered by BCT are not received within two business days of the agreed upon time/date and a Coach procured under this contract is out of service due to lack of said ordered parts, the Coach Manufacturer shall provide BCT within eight hours of BCT's verbal or written request, the original suppliers and/or manufacturers' parts numbers, company names, addresses, telephone numbers and contact persons' names for all of the specific parts not received by BCT. Where the Coach Manufacturer fails to honor this parts guaranty or parts ordered by BCT are not received within 30 days of the agreed upon delivery date, then the Coach Manufacturer shall provide to BCT, within seven days of BCT 's verbal or written request, the design and manufacturing documentation for those parts manufactured by the Coach Manufacturer and the original suppliers' and/or manufacturers' parts numbers, company names, addresses, telephone numbers and contact persons' names for all of the specific parts not received by BCT. Coach Manufacturer's design and manufacturing documentation provided to BCT shall be for its sole use in regard to the Coaches procured under this Contract and for no other purpose.

SP 2.3 Cross Reference Parts List

Cross reference parts lists: Four sets of cross reference part lists (CD acceptable) showing cross reference between Coach part number and the component manufacturer part numbers are required.
The Coach Manufacturer shall furnish a complete bill of materials of all parts/components used in the assembly of the Coach. This list shall include as minimum, Coach manufacturer's part number, part description, name of original part manufacturer and manufacturer's part/identifying number.
Build order sheets and specifications that list part numbers and quantity of items from the engine and transmission manufacturers shall be provided.

SP 2.4 Operating Manuals

"AS BUILT" Operating manuals shall be furnished covering all operating requirements for the driver. Information shown shall include Coach mechanical operations, response to alarms, engine operation, controls, emergency actions, preventive maintenance and road troubleshooting.

SP 2.5 Delivery

Unless otherwise stated, Coach Manufacturer will provide a draft copy of all literature identified in section SP 2 (Manuals) prior to the delivery of the first Coach of each order.

It is anticipated that final manuals will be drafted during the manufacture of the Coaches. Manuals will reflect any and all engineering changes that are made during the course of manufacture. Final manuals shall be delivered prior to final delivery of the Coaches, and acceptance of delivered manuals shall be a condition for acceptance of the last Coach in the order. The manufacturer will provide the same number of copies as specified of all manual updates, changes, service information bulletins, etc. for the life of the equipment while it is operational.

SP 3 TRAINING

The manufacturer shall provide all necessary training and manuals (Maintenance and Parts) for BCT or authorized representative's personnel, to ensure complete working knowledge of the system. Coach Manufacturer shall provide an adequate educational program for BCT personnel to insure satisfactory operation, servicing and maintenance of the equipment furnished. All training instructors shall be competent to teach the course area they are instructing. All instructors shall speak English and have a complete understanding of the English language. If the instructor or vendor presenter lacks the skill or knowledge to provide instruction, or cannot communicate with the students, BCT reserves the right to request that the instructor be replaced and the area of training be repeated.

Training will consist of Train the Trainer, Technical, and OEM equipment. Operator Orientation will be designed for Coach Operator Instructors. A second Train the Trainer Program will be designed for maintenance training personnel. These two programs will each be approximately four hours in length, and shall be a combination of classroom instruction and hands-on instruction, the latter being presented on and around the Coach. Instructions shall include manufacturer's recommendations for test frequency, limits and methods, including instructions required, where applicable. When methods of access, removal, dismantling or application are not self-evident, the instruction shall cover these matters.

The Coach Manufacturer shall provide a minimum of 12 weeks, 480 hours of instruction to BCT's Maintenance employees and operators in the operation and maintenance of the equipment furnished, at BCT's facility, at such time as BCT may designate. Of the 480 hours of instruction, 120 of these hours are to be provided directly by the component manufacturer of the engine, transmission and HVAC systems equally. Travel time not included in training time.

Classes will be held during BCT's three shifts (1st/2nd/3rd) of operation. Shift times are: 7am-3:30pm/3pm-11:30pm/11pm-7:30am.There will be no training on weekends. Each subject area training session shall be between eight and 40 classroom/hands-on hours based on subject area, with class size being no more than 15participants. Exact schedules will be negotiated between BCT's training personnel and the Coach Manufacturer. BCT will limit the number of personnel in each class to 15 or less so that class size will be manageable. Personnel attending each module or class will be designated by BCT with a list of attending individuals available to Coach Manufacturer. All attendance records will be kept by BCT's Training Division.

Items to cover include:
Body and chassis, electrical/electronics, power plant, fuel system, steering, transmission, electrical system, passenger doors, wheelchair ramp system, destination signs, axles and tires, suspension & braking, air system, HVAC/climate controls, optional equipment, fire suppression, special features and cleaning. In addition, the vendor is to conduct 16 hours of training dedicated to use of parts manuals.

Ten days prior to the delivery of the first Coach, the Coach Manufacturer will provide BCT with a CDROM using PDF Format and 100 loose leaf copies of all lesson plans, training guides, student workbooks, along with any other videos, transparencies or additional instructional training aids.

At the conclusion of the classroom instruction the Coach Manufacturer shall furnish to BCT two complete sets of lesson plans, classroom notes, films, slides, tapes, etc., used in presenting the course. The Coach Manufacturer shall provide visual and other teaching aids for use by BCT's training staff.

In addition to the in-depth training described above, the Coach Manufacturer shall provide a series of four short courses of four hours each for Maintenance Supervisors at BCT. The class size will be kept to a manageable number. The courses are intended to allow the supervisors to better understand the Coach and how to troubleshoot some of the common problems. BCT will work with the Coach Manufacturer to develop these supervisory training courses.

The Coach Manufacturer shall provide two class slots (for five days each) at the manufacturer's supplier training facility (registration, transportation and lodging to be included) as technical instruction for the following courses: Engine; transmission; fare collection equipment. The extent of instruction of the Coach Manufacturer's and sub-Coach Manufacturer's shops for instruction of supervisory and/or BCT instructors shall be at the discretion of the Broward County Transit Division.

NOTE: Training is an optional item and is priced separately on the Bid Sheet and not to be included in the price of the Coach.

TS 9.1 Technical Service Representative

The Coach Manufacturer shall provide at its own expense, a full-time qualified, service technician/mechanic on site at BCT facilities, to perform warranty repairs and supply technical support for a period equal to the basic warranty period, beginning from the date of delivery of the first Coach of each lot of Coaches delivered. This requirement applies to each and every lot of Coaches delivered. A work space will be provided by BCT for the vendor technician.

SP 4 SPARE COMPONENTS

SP 4.1 Requirements

To be included with each order of Coaches, three sets of the latest version of software and necessary hardware for diagnosis/troubleshooting and repair of the following systems: engine, transmission, brakes, electronic systems. Software and hardware are to be identified in bid proposal and updates are to be supplied and valid for 12 years. This software is to be delivered with the first Coach of each order. Any adapters, such as, but not limited to, towing, king pin presses and any other special tools needed to diagnose/repair the coach will be supplied in sets of three each. The bidder must provide with their bid document a detailed listing of all required diagnostic equipment to be supplied and included in the bid price of the Coaches.

SP 4.2 Components

The following spare components are to be included in the price of the Coaches (and delivered with the first production Coach.

For each order of 5 Coaches:

One Starter to match Coach order
One Transmission to match Coach order
One Wheelchair lift assembly to match Coach order
One Driver Seat to match Coach order
One Complete radiator system including after/coolers and mini hybrid thermal unit to match Coach order
One Complete windshield assembly to match Coaches order
One HVAC Drive Motor (generator) to match Coach order
One complete set of body glass
One replacement camera hard drive to match this order.

The following spare components are to be priced individually on the Bid Sheet and not included with the purchase price of Coaches: (Note: all items must be priced) All spare components are to be delivered prior to the delivery of the last Coach to prevent LDs.

One complete power plant including engine, transmission, coolers, radiator, mini hybrid thermal unit, controls, wire harness, filters, air compressor, mounts etc., and any other components necessary to complete the assembly to allow a turn-key in/out swap of a 45 foot diesel Coach power unit. The power plant shall be prepared for long term storage.
One Transmission to match Coach order
One Starter to match Coach order
One (1) complete W/C lift assembly to match the Coach order to include wire harnesses, controls and all hardware
One complete destination sign system (including front, side and rear) to match the Coach order with controls and programming hardware and software to match Coach order

One Complete driver's seat to match Coach order
Complete radiator systems including after/coolers and EMP mini hybrid thermal unit to match Coach order
One GFI Odyssey Fare box to match Coach order
Two Complete windshield assemblies to match Coach order
One HVAC Drive Motors (generator) to match Coach order
Two HVAC Inverters to match Coach order
One Functional Central Log On Control Unit to match Coach order
Three shop laptop computer, Toughbook, or approved equal, suitable for diagnosing and troubleshooting the various onboard systems delivered under this contract. Requires approval by BCT during the approved equal process.
Two Complete set of body glass to match Coach order
One Complete set of Entrance Doors to match Coach order
One Front Cap (excluding windshield)
Five replacement camera hard drives to match this order.
Five Outside Body Camera to Match Coach Order

SP 4.3 Spare Parts

The Coach Manufacturer shall guarantee the availability of replacement parts for the acquired Coaches for at least 12 years after the date of acceptance of the last Coach delivered to BCT. Spare parts shall be interchangeable with the original equipment and shall be manufactured in accordance with the highest quality assurance practices in the industry. Spare parts shall be obtainable through commercial distribution channels to the maximum extent practicable, minimizing captive sole-source distribution practices.

The Coach Manufacturer shall prepare and submit to BCT not less than 16weeks prior to delivery of the first Coach, a recommended spare and replacement parts list and a detailed listing of all fluids used in the vehicle. This listing will become a working document to be used by BCT in the procurement of spare and replacement parts. The spare and replacement parts list shall group parts by the sub-system of the vehicle system. The listing for each item shall give complete ordering and procurement information for that item. Long lead-time items shall be specifically noted. Each item listing shall contain at least the following information: item name, description, rating, price, manufacturer's name, part number, and drawing reference number. Items that are common to more than one sub-system shall be suitably cross referenced.

During the Request for approved equal phase, the Coach Manufacturer shall recommend the absolute minimum essential quantity of spare parts required to perform normal routine maintenance and to maintain the operation of the fleet assuming standard failure rates of component units. The Coach Manufacturer shall state the expected failure rate of major components to the extent practicable.

NOTE: Coaches shall be delivered with one full set of spare filters and belts for each Coach at the time of delivery. These may be bulk shipped separately but if so must be timed for delivery with the first Coach.

SP 5 LIQUIDATED DAMAGES

It is mutually understood and agreed by and between the parties to the Contract that time is of the essence with respect to the completion of the work and that in case of any failure on the part of the Coach Manufacturer to complete the work within the time specified BCT will be damaged thereby. The amount of said damages, being difficult if not impossible of definite ascertainment and prove, it is hereby agree that the amount of such damages due BCT shall be fixed at $200.00 per unit, per calendar day, from the established Liquidated Damages date until acceptance by BCT.

This is a liquidated damages provision due to the party's uncertainty as the actual damages suffered by the County as opposed to a penalty. Such damages are to be recorded and once the total liquidated damages are calculated the manufacturer shall issue a parts credit or cash reimbursement as determined solely by Broward County Transit Division in an amount equal to the liquidated damages. The Coach Manufacturer hereby agrees to pay the afore-stated amounts as fixed, agreed and liquidated damages, and not by way of penalty, to BCT and further authorizes BCT to deduct the amount of the damages from money due the Coach Manufacturer under the Contract, computed as aforesaid. If the monies due the Coach Manufacturer are insufficient or no monies are due the Coach Manufacturer, the Coach Manufacturer shall pay BCT the difference or the entire amount, whichever may be the case, within thirty (30) calendar days after receipt of a written demand by the Contracting Officer.

ATTACHMENT "B" REQUEST FOR APPROVED EQUAL

Potential bidders may submit for the County's consideration, prior to opening of bids, for a determination of approved equal status. Requests for approved equals must be submitted on this form and delivered by email to Christine Calhoun, Purchasing Agent, at ccalhoun@broward.org (email) **no later than 5:00 p.m. EST on Friday, February 14, 2014**. Late requests will not be considered. The County's response to Requests for Approved Equals will be issued by addendum.

Vendor shall submit with this form any relevant product literature in order to demonstrate that the product meets all the bid requirements.

Bidder to complete the following:

Company Name of Bidder: _____

Contact Name/Title: _____

E-mail: _____ Phone: _____

Request No. _____ **Bid Page No.** _____ **Bid Reference Specification No.** _____

Bid Specification Requirement:

_____

_____

Request for Approved Equal:

Manufacturer Offered: _____

Model No./Product: _____

Description of product offered for approved equal: _____

_____

_____

_____

Product Literature attached to this form: ☐ Yes ☐ No

For Broward County Use Only

Broward County Response: ☐ Approved ☐ Not Approved

Reasons:

_____

_____

_____

ATTACHMENT "C" VENDORS LIST (NON-CERTIFIED SUBCONTRACTORS AND SUPPLIERS INFORMATION)

This form should be submitted with the bid; if not submitted with bid, it must be submitted within three (3) business days of request from the County. Provide the following information for any non-certified subcontractors and major material suppliers to the Contractor for this solicitation. If none, state "none" on this form. Information included in this form is subject to verification by Broward County. Use additional sheets as needed.

1. Subcontracted Firm's Name: _____

   Subcontracted Firm's Address: _____

   Subcontracted Firm's Telephone Number: _____

   Contact Person's Name and Position: _____

   Contact Person's E-Mail Address: _____

   Estimated Subcontract/Supplies Contract Amount: _____

   Type of Work/Supplies Provided: _____

2. Subcontracted Firm's Name: _____

   Subcontracted Firm's Address: _____

   Subcontracted Firm's Telephone Number: _____

   Contact Person's Name and Position: _____

   Contact Person's E-Mail Address: _____

   Estimated Subcontract/Supplies Contract Amount: _____

   Type of Work/Supplies Provided: _____

3. Subcontracted Firm's Name: _____

   Subcontracted Firm's Address: _____

   Subcontracted Firm's Telephone Number: _____

   Contact Person's Name and Position: _____

   Contact Person's E-Mail Address: _____

   Estimated Subcontract/Supplies Contract Amount: _____

   Type of Work/Supplies Provided: _____

I certify that the information submitted in this report is in fact true and correct to the best of my knowledge.

Signature	Title/ Firm Name	Date

Finance and Administration Services Department
PURCHASING DIVISION
115 S. Andrews Avenue, Room 212, Fort Lauderdale, Florida 33301 | 954-357-6066 | FAX 954-357-8535 | broward.org/Purchasing
Hours of Operation: Monday through Friday 8:30 a.m. to 5:00 p.m.

ATTACHMENT "D"
BIDDERS OPPORTUNITY LIST

The purpose of this form is to obtain information to develop and maintain a list of all Prime Vendors and subcontractors/subconsultants participating or attempting to participate in County sponsored Department of Transportation (D.O.T.) assisted contracts. The information should be submitted with the bid/quote response; however, the bidder **MUST** provide a completed copy of this form within five (5) business days after request by the County.

Prime Vendor Information

1. Federal Tax ID Number:
2. Firm Name:
3. Phone:
4. Address:
5. Year Firm Established: _____
6. ☐ DBE ☐ Non-DBE
7. Type of work bid on:

(Please be specific in regard to the type of work).

8. Contract Amount or Percentage

(%): _____ or ($): _____

9. Annual Gross Receipts

- ☐ Less than $200,000
- ☐ $200,001 - $500,000
- ☐ $500,001 - less than $1 million
- ☐ $1 million - less than $5 million
- ☐ $5 million - less than $10 million
- ☐ $10 million - less than $20 million
- ☐ $20 million - less than $50 million
- ☐ $50 million - less than $100 million
- ☐ $100 million - less than $500 million
- ☐ $500 million - less than $1 billion
- ☐ Over $1 billion

10. Ethnic Categories

- ☐ B (Black American)
- ☐ H (Hispanic American)
- ☐ NA(Native American)
- ☐ Subcont. Asian American
- ☐ Asian Pacific American
- ☐ Non- Minority Women
- ☐ Other (i.e., not of any other group listed above)

11. Gender

- ☐ Female
- ☐ Male

(Continued)

ATTACHMENT "D"
BIDDERS OPPORTUNITY LIST
(Continued)

Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid or quote to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid or quote. Provide additional Subcontractor /Subconsultant Information forms as needed.

1. Federal Tax ID Number: 2. Firm Name: 3. Phone: 4. Address: 5. Year Firm Established: _____ 6. ☐ DBE ☐ Non-DBE 7. ☐ Subcontractor ☐ Subconsultant 8. Type of work bid on: (Please be specific in regard to the type of work).	9. Subcontract Amount/Percentage (%): _____ or ($): _____ 10. Annual Gross Receipts: ☐ Less than $200,000 ☐ $200,001 - $500,000 ☐ $500,001 - less than $1 million ☐ $1 million - less than $5 million ☐ $5 million - less than $10 million ☐ $10 million - less than $20 million ☐ $20 million - less than $50 million ☐ $50 million - less than $100 million ☐ $100 million - less than $500 million ☐ $500 million - less than $1 billion ☐ Over $1 billion	11. Ethnic Categories ☐ Asian Pacific American ☐ B (Black American) ☐ H (Hispanic American) ☐ NA(Native American) ☐ Non-Minority Women ☐ Subcont. Asian American ☐ Other (i.e., not of any other group listed above) 12. Gender ☐ Female ☐ Male
1. Federal Tax ID Number: 2. Firm Name: 3. Phone: 4. Address: 5. Year Firm Established: _____ 6. ☐ DBE ☐ Non-DBE 7. ☐ Subcontractor ☐ Subconsultant 8. Type of work bid on: (Please be specific in regard to the type of work).	9. Subcontract Amount/Percentage (%): _____ or ($): _____ 10. Annual Gross Receipts: ☐ Less than $200,000 ☐ $200,001 - $500,000 ☐ $500,001 - less than $1 million ☐ $1 million - less than $5 million ☐ $5 million - less than $10 million ☐ $10 million - less than $20 million ☐ $20 million - less than $50 million ☐ $50 million - less than $100 million ☐ $100 million - less than $500 million ☐ $500 million - less than $1 billion ☐ Over $1 billion	11. Ethnic Categories ☐ Asian Pacific American ☐ B (Black American) ☐ H (Hispanic American) ☐ NA(Native American) ☐ Non-Minority Women ☐ Subcont. Asian American ☐ Other (i.e., not of any other group listed above) 12. Gender ☐ Female ☐ Male

ATTACHMENT "E" DOMESTIC PARTNERSHIP CERTIFICATION FORM

THIS FORM SHOULD BE SUBMITTED WITH THE BID BUT MUST BE COMPLETED AND SUBMITTED WITHIN THREE (3) BUSINESS DAYS OF COUNTY'S REQUEST.

For all submittals over $100,000.00, the Vendor, by virtue of the signature below, certifies that it is aware of the requirements of Broward County's Domestic Partnership Act, (Section 16-1/2 -157 of the Broward County Code of Ordinances, as amended); and certifies the following: **(Please check only one below)**.

☐ 1. The Vendor currently complies with the requirements of the County's Domestic Partnership Act and provides benefits to Domestic Partners of its employees on the same basis as it provides benefits to employees' spouses.

☐ 2. The Vendor will comply with the requirements of the County's Domestic Partnership Act at time of contract award and provide benefits to Domestic Partners of its employees on the same basis as it provides benefits to employees' spouses.

☐ 3. The Vendor will not comply with the requirements of the County's Domestic Partnership Act at time of award.

☐ 4. The Vendor does not need to comply with the requirements of the County's Domestic Partnership Act at time of award because the following exception(s) applies: **(Please check only one below)**.

- ☐ The Vendor employs less than five (5) employees.
- ☐ The Vendor is a governmental entity, not-for-profit corporation, or charitable organization.
- ☐ The Vendor is a religious organization, association, society, or non-profit charitable or educational institution.
- ☐ The Vendor does not provide benefits to employees' spouses.
- ☐ The Vendor provides an employee the cash equivalent of benefits (Attach an affidavit in compliance with the Act stating the efforts taken to provide such benefits and the amount of the cash equivalent).
- ☐ The Vendor cannot comply with the provisions of the Domestic Partnership Act because it would violate the laws, rules or regulations of federal or state law or would violate or be inconsistent with the terms or conditions of a grant or contract with the United States or State of Florida. Indicate the law, statute or regulation (State the law, statute or regulation and attach explanation of its applicability).

I, _____, _____of _____
(Name) (Title) (Vendor)

hereby attests that I have the authority to sign this notarized certification and certify that the above-referenced information is true, complete and correct.

_____
Signature

_____
Print Name

SWORN TO AND SUBSCRIBED BEFORE ME this ____day of _____, 20___

STATE OF _____ COUNTY OF _____

_____ My commission expires: _____ (SEAL)
Notary Public

(Print, type or stamp commissioned name of Notary Public)

Personally Known ____ or Produced Identification ____ Type of Identification Produced: _____

ATTACHMENT "F" DRUG FREE WORKPLACE CERTIFICATION

The undersigned vendor hereby certifies that it will provide a drug-free workplace program by:

(1) Publishing a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the offeror's workplace, and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establishing a continuing drug-free awareness program to inform its employees about:
(I) The dangers of drug abuse in the workplace;
(ii) The offeror's policy of maintaining a drug-free workplace;
(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Giving all employees engaged in performance of the contract a copy of the statement required by subparagraph (1);

(4) Notifying all employees, in writing, of the statement required by subparagraph (1), that as a condition of employment on a covered contract, the employee shall:
(I) Abide by the terms of the statement; and
(ii) Notify the employer in writing of the employee's conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or of any state, for a violation occurring in the workplace NO later than five days after such conviction.

(5) Notifying Broward County government in writing within 10 calendar days after receiving notice under subdivision (4) (ii) above, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 calendar days after receiving notice under subparagraph (4) of a conviction, taking one of the following actions with respect to an employee who is convicted of a drug abuse violation occurring in the workplace:
(I) Taking appropriate personnel action against such employee, up to and including termination; or
(ii) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency; and

(7) Making a good faith effort to maintain a drug-free workplace program through implementation of subparagraphs (1) through (6).

_____
(Vendor Signature)

_____
(Print Vendor Name)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this ____day of _____, 20__,

by _____
(Name of person who's signature is being notarized)

as _____ of _____
(Title) (Name of Corporation/Company)

known to me to be the person described herein, or who produced _____
(Type of Identification)

as identification, and who did/did not take an oath.

NOTARY PUBLIC:

_____
(Signature)

_____
(Print Name)

My commission expires: _____

ATTACHMENT "G" SCRUTINIZED COMPANIES CERTIFICATION

THIS FORM SHOULD BE SUBMITTED WITH THE BID BUT MUST BE COMPLETED AND SUBMITTED WITHIN THREE (3) BUSINESS DAYS OF COUNTY'S REQUEST.

The Vendor, by virtue of the signature below, certifies that:

a. The Vendor, owners, or principals are aware of the requirements of Section 287.135, Florida Statutes, regarding Companies on the Scrutinized Companies with Activities in Sudan List or on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; and

b. The Vendor, owners, or principals, are eligible to participate in this solicitation and not listed on either the Scrutinized Companies with Activities in Sudan List or on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; and

c. If awarded the Contract, the Vendor, owners, or principals will immediately notify the COUNTY in writing if any of its principals are placed on the Scrutinized Companies with Activities in Sudan List or on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

_____
(Authorized Signature)

_____
(Print Name and Title)

_____
(Name of Vendor)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ day of _____, 20____, by _____ (name of person whose signature is being notarized) as _____ (title) of _____ (Name of Vendor), known to me to be the person described herein, or who produced _____ (type of identification) as identification, and who did/did not take an oath.

NOTARY PUBLIC:

_____ State of _____ at Large (SEAL)
(Signature)

_____ My commission expires: _____
(Print name)

ATTACHMENT "H"SELF-CERTIFICATION - OWNER ETHNICITY/GENDER (OPTIONAL)

The information requested is voluntary and not a requirement to respond to a Broward County solicitation. However, in the event that your company becomes the recommend vendor for award, this information will be required prior to award. Recommended vendor for award must submit within three business days of County's request.

In order for the County to ensure that all prospective vendors have an equal opportunity to participate in County procurements, the following information is requested regarding each prospective vendor. Please read the following and determine which is applicable.

The following gender applies to the primary owner of firm:

☐ Female ☐ Male ☐ Equally–Owned (Female and Male)

The following ethnicity applies to the primary owner of firm:

☐ African American/Black/Afro-Caribbean
☐ Asian Pacific
☐ Caucasian/White
☐ Hispanic/Latino
☐ Native American
☐ Subcontinent Asian
☐ Other

Under penalties of perjury, I declare that I have read the foregoing document and that the facts stated in it are true.

_____ _____
(Vendor signature) (Print Vendor Name)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me this ____day of _____, 20___, by

_____ as _____ of
(Name of person who's signature is being notarized) (Title)

_____ known to me to be the person described herein, or who produced
(Name of Corporation/Company)

_____ as identification, and who did/did not take an oath.
(Type of Identification)

NOTARY PUBLIC:

_____ My commission expires: _____
(Signature)

_____
(Print Name)

ATTACHMENT "I" INSURANCE REQUIREMENTS

Insurance Requirement Purchase and Delivery of Vehicles

The following coverage is deemed the minimum insurance required for this project. The selected firm must be prepared to provide proof of insurance commensurate with or in excess of this requirement. Any deviation is subject to the approval of Risk Management.

TYPE OF INSURANCE	MINIMUM LIABILITY LIMITS		
		Each Occurrence	Aggregate
COMMERCIAL GENERAL LIABILITY **Broad form or equivalent** *With no exclusions or limitations for:* [x] Premises–Operations [x] Explosion, Collapse, Underground Hazards [x] Products/Completed Operations Hazard [x] Contractual Insurance [x] Independent Contractors [x] Personal Injury	Bodily Injury		
	Property Damage		
	Combined single limit Bodily Injury & Property Damage	**$1 mil**	**$2 mil**
	Personal Injury		
BUSINESS AUTO LIABILITY* **COMPREHENSIVE FORM** [x] Owned [x] Hired [x] Non-owned [x] Scheduled [x] Any Auto	Bodily Injury (each person)		
	Bodily Injury (each accident)		
	Property Damage		
	Combined single limit Bodily Injury & Property Damage	**$ 500 k**	
EXCESS/UMBRELLA LIABILITY *May be used to supplement minimum liability coverage requirements.*	Follow form basis or Add'l insd endorse-ment is required	$	
[x] **WORKERS' COMPENSATION** *If exempt: State Exemption Certificate or letter on company letterhead is required.* [x] **EMPLOYERS' LIABILITY**	Chapter 440 FS	**STATUTORY**	U.S. Longshoremen & Harbor Workers' Act & Jones Act is required for any activities on or about navigable water
	(each accident)	**$ 500 k**	
[ ] **PROFESSIONAL LIABILITY (E & O)**	(each accident)		
	Extended coverage period		
[ ] **BUILDER'S RISK (PROPERTY)** **"ALL RISK" WITH WIND AND FLOOD** Coverage must remain in force until written final acceptance by County.	Maximum Deductible: $10 k **DED for WIND or WIND & FLOOD not to exceed 5% of completed value** CONTRACTOR IS RESPONSIBLE FOR DEDUCTIBLE		**Completed Value form**
[ ] Installation floater Coverage must be "All Risk", completed value. Coverage must remain in force until written final acceptance by County.	Maximum Deductible: CONTRACTOR IS RESPONSIBLE FOR DEDUCTIBLE	$10 k	**Completed Value form**

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

REFERENCE: Commuter coaches - BCT

CERTIFICATE HOLDER:

Broward County
115 South Andrews Avenue
Fort Lauderdale, FL 33301
RE: Harold Tutt - BCT

FRANCISCO VASQUEZ
2013.09.06 10:45:00 -04'00'

Risk Management Division

Revised 2013

Federal Transit Administration (FTA)
United States Department of Transportation (USDOT)
Funding Supplement

Broward County Board of County Commissioners
TRANSPORTATION DEPARTMENT – TRANSIT DIVISION

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AUTHORITY

This solicitation, purchase order, or Contract (all of which shall be referred to hereinafter as the "Contract" or "underlying Contract") is funded in part by funds received from the Federal Transit Administration (FTA) of the United States Department of Transportation. The award of this Contract is subject to the requirements of financial assistance agreements between Broward County, a political subdivision of the state of Florida (hereinafter referred to as "COUNTY"), and the United States Department of Transportation (USDOT). This Contract is subject to the conditions herein and which are set forth in greater detail in 49 CFR Part 18, "Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments"; Federal Transit Administration (FTA) Circular 4220.1F, "Third Party Contracting Guidance," as may be amended from time to time; and other laws and regulations governing procurement activities for Broward County programs and projects. Conditions imposed by the FTA are also described in Appendix A to FTA's "Best Practices Procurement Manual," available at:
http://www.fta.dot.gov/funding/thirdpartyprocurement/bppm/grants_financing_6195.html.
References to the Code of Federal Regulations (CFR) website are available at: http://www.gpoaccess.gov/cfr/index.html.

DEFINITIONS

As used in this document, "Board" means the Broward County Board of County Commissioners." Contract" means any binding agreement, regardless of how called, for the procurement or disposal of supplies, services, or construction awarded by any officer or agency of COUNTY. "CONTRACTOR" means the person, firm, or corporation or business entity that enters into a Contract with COUNTY and includes all partners and all joint ventures of such person with whom COUNTY has contracted and who is responsible for the acceptable performance of the work and for the payment of all legal debts pertaining to the work. "Subcontractor" means a person, firm or corporation or combination thereof having a direct Contract with CONTRACTOR for all or any portion of the work or who furnishes material worked into a special design according to the plans and specifications for such work, but not those who merely furnish equipment or materials required by the plans and specifications.

FURTHER INFORMATION

If you have any questions or need clarification as to the applicability of any term, condition, or requirement as contained in Part A, General Conditions – Applicable to All Contracts, and Part B, Additional Requirements – Conditional, of this Contract, contact Dianne DeLyons Shuler, Compliance Manager, Broward County Transit Division, at 954-357-8481, or by email: dshuler@broward.org

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PART A: GENERAL CONDITIONS – APPLICABLE TO ALL CONTRACTS

NO FEDERAL GOVERNMENT OBLIGATION TO THIRD PARTIES.

a) COUNTY and CONTRACTOR acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to COUNTY, CONTRACTOR, or any other party (whether or not a party to that Contract) pertaining to any matter resulting from the underlying Contract.

b) CONTRACTOR agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the Subcontractor who will be subject to its provisions.

PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS.

a) CONTRACTOR acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying Contract, CONTRACTOR certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying Contract or the FTA-assisted project for which this Contract work is being performed. In addition to other penalties that may be applicable, CONTRACTOR further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on CONTRACTOR to the extent the Federal Government deems appropriate.

b) CONTRACTOR also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a Contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on CONTRACTOR, to the extent the Federal Government deems appropriate.

c) CONTRACTOR agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the Subcontractor who will be subject to the provisions.

FEDERAL CHANGES.

CONTRACTOR shall at all times comply with all applicable FTA regulations, policies, procedures, and directives, including without limitation those listed directly or by reference in the Master Agreement between COUNTY and the FTA, as they may be amended or promulgated from time to time during the term of this Contract. CONTRACTOR's failure to so comply shall constitute a material breach of this Contract. CONTRACTOR agrees to include this language in each Subcontract financed in whole or in part with Federal assistance provided by FTA.

INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS.

The provisions contained in this FTA/USDOT Funding Supplement include, in part, standard terms and conditions required by the U.S. Department of Transportation (USDOT), whether or not expressly set forth in the Contract provisions. All contractual provisions required by USDOT, as set forth in FTA Circular 4220.1F, dated November 1, 2008, and as may be amended, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. CONTRACTOR shall not perform any act, fail to perform any act, or refuse to comply with any Broward County requests which would cause the COUNTY to be in violation of the FTA terms and conditions. CONTRACTOR agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA.

ACCESS TO RECORDS AND REPORTS

a) CONTRACTOR agrees to provide COUNTY, the FTA Administrator, the Comptroller General of the United States, or any of their authorized representatives, access to any books, documents, papers, and records of CONTRACTOR which are directly pertinent to this Contract for the purposes of making audits, examinations, excerpts, and transcriptions. CONTRACTOR also agrees, pursuant to 49 C.F.R. 633.17, to provide the FTA Administrator or his authorized representatives including any Project Management Oversight ("PMO") CONTRACTOR access to CONTRACTOR's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

b) In the event that COUNTY, which is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 U.S.C. 5325(a), enters into a Contract for a capital project or improvement (defined at 49 U.S.C. 5302(a)1) through other than competitive bidding, CONTRACTOR shall make available records related to the Contract to COUNTY, the Secretary of Transportation and the Comptroller General or any authorized officer, agent, or employee of any of them for the purposes of conducting an audit and inspection.

c) CONTRACTOR agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

d) CONTRACTOR agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case CONTRACTOR agrees to maintain same until COUNTY, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i)(11).

CIVIL RIGHTS REQUIREMENTS

a) Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, CONTRACTOR agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, CONTRACTOR agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

b) Equal Employment Opportunity

(1) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, CONTRACTOR agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq. (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. CONTRACTOR agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, CONTRACTOR agrees to comply with any implementing requirements FTA may issue.

(2) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § § 623 and Federal transit law at 49 U.S.C. § 5332, CONTRACTOR agrees to refrain from discrimination against

present and prospective employees for reason of age. In addition, CONTRACTOR agrees to comply with any implementing requirements FTA may issue.

(3) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, CONTRACTOR agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, CONTRACTOR agrees to comply with any implementing requirements FTA may issue.

c) CONTRACTOR also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

a) This Contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, Participation by Disadvantaged Business Enterprises in Department of Transportation (DOT) Financial Assistance Programs.

b) The CONTRACTOR agrees that it shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The CONTRACTOR shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the CONTRACTOR to carry out these requirements is a material breach of Contract, which may result in the termination of the Contract or such other remedy as COUNTY may deem appropriate. Each subcontract the CONTRACTOR signs with a Subcontractor must include the assurance in this paragraph.

c) The Disadvantaged Business Enterprise (DBE) regulation (49 CFR Part 26) establishes requirements for setting an overall goal for DBE participation in federally-funded contracts. This rule requires recipients of federal funds to use a methodology based on demonstrable data of relevant market conditions and is designed to reach a goal COUNTY would expect DBEs to achieve in the absence of discrimination.

d) Since this project is funded in part using federal funds, it is the policy of the Broward County Office of Economic and Small Business Development to ensure that Disadvantaged Business Enterprises (DBEs), as defined in 49 CFR Part 26, are afforded maximum opportunity to receive and participate as Subcontractors and suppliers on all Contracts awarded by COUNTY; therefore, good-faith efforts must be made to provide DBEs an opportunity to participate in the project in accordance with the DBE Program Plan.

e) COUNTY fully supports the Federal government's Disadvantaged Business Enterprises Program.

i. The overall goal setting provisions of 49 CFR Part 26 require that the COUNTY, as a recipient of federal funds, set overall goals based on demonstrable evidence of the relative availability of ready, willing and able DBEs in the areas from which the COUNTY obtains contractors. In this regard, the COUNTY has established DBE participation goals, and said goals have been established based primarily on the availability of certified DBE firms that are ready, willing, and able to participate in the project.

The Office of Economic and Small Business Development will review all forms to determine bidders'/proposers' responsibility:

1. Letter of Intent to Utilize a DBE Subcontractor/Subconsultant – Exhibit 1.
2. DBE Good Faith Effort Evaluation Report, only required if goals were not met – Exhibit 2.

These forms are included herein as Exhibits 1 and 2. **All forms may be downloaded from the Small Business Development Division website.** http://www.broward.org/ECONDEV/SMALLBUSINESS/Pages/compliance.aspx

IF DBE PARTICIPATION HAS BEEN TARGETED THROUGH RACE-NEUTRAL MEANS (NO DBE NUMERICAL PARTICIPATION GOAL), EACH BIDDER/RESPONDER IS STRONGLY ENCOURAGED TO SUBMIT THE FORMS SET FORTH ABOVEPRIOR TO AWARD OF YOUR BID, OFFER, OR PROPOSAL.

Letter of Intent (Exhibit 1): Letter of Intent must be executed by the Bidder and countersigned by all DBE Subcontractors.

Each DBE listed on the Letter of Intent must be certified prior to bid opening as DBE in order to be eligible for award.

For further information regarding DBE submittals, contact the Office of Economic and Small Business Development Division at (954) 357-6400.

Application for Evaluation of Good Faith Effort (Exhibit 2): Bidder that submits an **Application for Evaluation of Good Faith Effort**, Exhibit 2, must be able to demonstrate through proper documentation its reasonable good-faith efforts to meet the goal, if Bidder wishes to remain eligible for award.

Reasonable efforts as determined by the Office of Economic and Small Business Development to meet the DBE Participation goals may include, but are not limited to:

- Attendance at any scheduled pre-bid meeting concerning DBE participation.
- Timely advertisement in general circulation media, trade association

publications, and minority-focus media.

- Timely notification of minority business or CONTRACTOR groups and associations of solicitation for specific sub-bids.
    - Proof of written solicitations to DBE firms.
- Efforts to select portions of the work proposed to be performed by DBE in order to increase the likelihood of achieving the stated goal.
- Efforts to provide DBEs that need assistance in obtaining bonding or insurance required by the Bidder or COUNTY.
- A report submitted by the Bidder to the Small Business Development Division prior to award explaining the Bidder's efforts to obtain DBE participation. The report shall include the following:

-- A detailed statement of the timely efforts made to negotiate with DBEs including, at a minimum, the names, addresses and telephone numbers of DBEs who were invited to bid or otherwise contacted;

-- A description of the information provided to DBE regarding the plans and specifications for portions of the work to be performed; and a detailed statement of the reasons why additional Contracts with DBE, if needed to meet the stated goal, were not reached.

-- A detailed statement of the efforts made to select portions of the work proposed to be performed by DBE in order to increase the likelihood of achieving the stated goal.

-- As to each DBE that bids on a subcontract but declared "unqualified" by the Bidder, a detailed statement of the reasons for the Bidder's conclusion.

-- As to each DBE invited to bid, but the Bidder considers to be unavailable because of a lack of bid response or submission of a bid which was not the low responsible bid, an Unavailability of DBE Certificate signed by the Bidder.

For the purposes of goal achievement, the COUNTY requires the successful Bidder to use firms certified as DBEs in accordance with Federal Guidelines.

The Florida Department of Transportation (FDOT) maintains a directory of certified DBE firms that are eligible to participate on DBE contracts within the state of Florida.

A listing of these DBEs can be viewed at the following Unified Certification Program (UCP) Website: https://www3.dot.state.fl.us/EqualOpportunityOffice/biznet/mainmenu.asp.
IF DBE PARTICIPATION HAS BEEN TARGETED THROUGH RACE-NEUTRAL MEANS, THE FORMS SET FORTH ABOVE NEED NOT BE SUBMITTED.

For purposes of this section, the term, "DBE Race-Neutral Participation," means the Office of Economic and Small Business Development Division (OESBD) has determined that because federal funds are available for this project, DBE participation has been targeted through the use of RACE-NEUTRAL means. Race-Neutral does not mean that no efforts are made to facilitate DBE participation. Race-Neutral DBE participation occurs when a DBE wins a contract or subcontract that was not assigned numerical DBE goals, or when the DBE status was not considered in making the award. Some examples of Race-Neutral means can be found in 49 CFR 26.51.

Although there are no numerical goals assigned to DBE race-neutral participation projects, bidders/responders are highly encouraged to utilize the services of DBE-certified firms as much as possible.

f) CONTRACTOR agrees that throughout the term of this Contract, the services as provided by the firms listed on **Exhibit 1 (Letter of Intent)** shall remain at least at the percentage levels set forth therein.

g) CONTRACTOR shall pay its Subcontractors and suppliers within ten (10) days for a construction Contract or within thirty (30) days for a non-construction Contract following receipt of payment from the COUNTY for such subcontracted work or supplies. CONTRACTOR agrees that if it withholds an amount as retainage from its Subcontractors or suppliers, that it will release such retainage and pay same within ten (10) days for a construction Contract or within thirty (30) days for a non-construction Contract following receipt of payment of retained amounts from COUNTY, or within ten (10) days for a construction Contract or within thirty (30) days for a non-construction Contract after the Subcontractor has satisfactorily completed its work, whichever shall first occur.

h) CONTRACTOR agrees that nonpayment of a Subcontractor or supplier shall be a material breach of this Contract and that COUNTY may, at its option, increase allowable retainage or withhold progress payments unless and until CONTRACTOR demonstrates timely payments of sums due to such Subcontractors or suppliers. CONTRACTOR agrees that the presence of a "pay when paid" provision in a subcontract shall not preclude COUNTY's inquiry into allegations of nonpayment. The foregoing remedies shall not be employed when CONTRACTOR demonstrates that failure to pay results from a bona fide dispute with its Subcontractor or supplier.

i) CONTRACTOR agrees to complete and submit a monthly report to the Office of Economic and Small Business Development, with copy to the using department project manager, on DBE participation, which should contain a record of payments made to its DBE Subcontractors during the current reporting period. CONTRACTOR shall utilize the form attached as **Exhibit 3 – Monthly DBE Utilization Report**.

j) CONTRACTOR agrees to complete and submit a Final Monthly DBE Participation Report containing the total amount paid to its DBE Subcontractors.

This report must be submitted with the CONTRACTOR's request for final payment and release of retainage, if applicable. CONTRACTOR shall utilize the form attached as **Exhibit 4- Final Monthly DBE Utilization Report**.

k) CONTRACTOR shall certify to COUNTY the amounts paid to each DBE involved in the project as either a joint venture partner or pursuant to a subcontract with the disadvantaged businesses. All such certifications shall be signed by both CONTRACTOR and DBEs. One of the main purposes of these provisions is to make sure that DBEs actually perform work committed to them at Contract award.

l) CONTRACTOR agrees that failure to provide appropriate certification as to the payment of DBEs and participants in the Contract, and provide certification in a form acceptable to COUNTY that disadvantaged business participation requirements of the Contract have been met, notwithstanding any other provisions of this Contract, shall be cause for COUNTY to withhold further payments under the Contract until such time as such certification is received and accepted by COUNTY, and shall not entitle CONTRACTOR to terminate the Contract, to cease work to be performed, or to be entitled to any damages or extensions of time, whatsoever, due to such withholding of payment or delay in work associated thereto.

m) If CONTRACTOR fails to comply with the requirements herein, COUNTY shall have the right to exercise any right or remedy provided in the Contract or under applicable law, with all such rights and remedies being cumulative.

n) CONTRACTOR shall not terminate a DBE subcontract for convenience and then perform the work with its own forces or its affiliate without the COUNTY's prior written consent. CONTRACTOR shall inform COUNTY immediately when a DBE firm is not able to perform or if CONTRACTOR believes the DBE firm should be replaced for any other reason, so that the Office of Economic and Small Business Development may review and verify the good faith efforts of CONTRACTOR to substitute the DBE firm with another DBE firm. Whenever a DBE firm is terminated for any reason, including cause, CONTRACTOR shall make good faith efforts to find another DBE firm to perform the work required of the original DBE firm.

CONTRACT COMPLIANCE MONITORING.

a) Compliance monitoring is conducted to determine if CONTRACTOR and/or Subcontractors are complying with the requirements of the DBE Program. Failure of the CONTRACTOR to comply with this provision may result in the COUNTY imposing penalties or sanctions pursuant to the provisions of the DBE regulation, 49 CFR Part 26.

b) Contract compliance will encompass monitoring for Contract dollar achievement and DBE CONTRACTOR utilization. The Office of Economic and Small Business

Development staff will have the authority to audit and monitor all Contracts and Contract-related documents related to COUNTY projects. The requirements of the DBE Program are applicable to all CONTRACTORS, general CONTRACTORS, and Subcontractors.

c) CONTRACTOR shall be responsible for ensuring proper documentation with regard to its utilization and payment of DBE Subcontractors.

ENERGY CONSERVATION

CONTRACTOR agrees to comply with mandatory standards and policies related to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act. CONTRACTOR further agrees to include this provision in each subcontract financed in whole or in part with federal assistance provided by FTA.

TERMINATION.

This Contract may be terminated for cause by the aggrieved party if the party in breach has not corrected the breach within ten (10) days after written notice from the aggrieved party identifying the breach. This Contract may also be terminated for convenience by the Board. Termination for convenience by the Board shall be effective on the termination date stated in written notice provided by COUNTY, which termination date shall be not less than thirty (30) days after the date of such written notice. This Contract may also be terminated by the County Administrator upon such notice as the County Administrator deems appropriate under the circumstances in the event the County Administrator determines that termination is necessary to protect the public health or safety. The parties agree that if COUNTY erroneously, improperly or unjustifiably terminates for cause, such termination shall be deemed a termination for convenience, which shall be effective thirty (30) days after such notice of termination for cause is provided.

This Contract may be terminated for cause for reasons including, but not limited to, CONTRACTOR's repeated (whether negligent or intentional) submission for payment of false or incorrect bills or invoices, failure to suitably perform the work; or failure to continuously perform the work in a manner calculated to meet or accomplish the objectives as set forth in this Contract. This Contract may also be terminated by the Board:

Upon the disqualification of CONTRACTOR as a DBE by COUNTY's Director of the Office of Economic and Small Business Development Division if CONTRACTOR's status as a DBE was a factor in the award of this Agreement and such status was misrepresented by CONTRACTOR;

Upon the disqualification of CONTRACTOR by COUNTY's Director of the Office of Economic and Small Business Development due to fraud, misrepresentation, or material misstatement by CONTRACTOR in the course

of obtaining this Contract or attempting to meet the DBE contractual obligations;

Upon the disqualification of one or more of CONTRACTOR's DBE participants by COUNTY's Director of the Office of Economic and Small Business Development if any such participant's status as a DBE firm was a factor in the award of this Contract and such status was misrepresented by CONTRACTOR or such participant;

a. Upon the disqualification of one or more of CONTRACTOR's DBE participants by COUNTY's Director of the Office of Economic and Small Business Development if such DBE participant attempted to meet its DBE contractual obligations through fraud, misrepresentation, or material misstatement; or

b. If CONTRACTOR is determined by COUNTY's Director the Office of Economic and Small Business Development to have been knowingly involved in any fraud, misrepresentation, or material misstatement concerning the DBE status of its disqualified DBE participant.

Notice of termination shall be provided in writing except that notice of termination by the County Administrator, which the County Administrator deems necessary to protect the public health, safety, or welfare, may be verbal notice that shall be promptly confirmed in writing.

In the event this Contract is terminated for convenience, CONTRACTOR shall be paid for any services properly performed under the Contract through the termination date specified in the written notice of termination. CONTRACTOR acknowledges and agrees that it has received good, valuable and sufficient consideration from COUNTY, the receipt and adequacy of which are hereby acknowledged by CONTRACTOR, for COUNTY's right to terminate this Agreement for convenience.

In the event that the underlying Contract contains a termination provision which conflicts with the termination provision above, the termination provisions set forth in the underlying Contract shall prevail over the termination provision set forth in this FTA/USDOT Funding Supplement.

PART B: ADDITIONAL REQUIREMENTS – CONDITIONAL
(Please read each qualifying condition carefully.)

RECYCLED PRODUCTS

If this Contract is for items designated in Subpart B, 40 CFR Part 247 by the EPA, and COUNTY or CONTRACTOR procures $10,000 or more of one of these items during the fiscal year or has procured $10,000 or more of such items in the previous fiscal year using federal funds, the CONTRACTOR agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 USC 6962), including, but not limited to, the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

GOVERNMENT-WIDE DEBARMENT AND SUSPENSION

If this Contract has a value of $25,000 or more, this procurement is a covered transaction for purposes of 49 CFR Part 29. As such, the CONTRACTOR is required to verify that none of the CONTRACTORS, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The CONTRACTOR agrees to comply with 49 CFR 29, Subpart C, and must include the requirement to comply 49 CFR 29, Subpart C, in each Subcontract financed in whole or in part with federal assistance provided by FTA. **(The form for certifying compliance, Government-wide Debarment and Suspension, is attached as Exhibit 5.)**

BUY AMERICA

If this Contract exceeds $100,000, the CONTRACTOR agrees to comply with 49 USC §5323(j) and 49 CFR Part 661, which provide that federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j) (2) (C) and 49 CFR 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

A Bidder or offeror must submit to COUNTY the appropriate Buy America certification, **the certification form is attached as Exhibit 6,** with all bids or proposals on FTA-funded Contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America Certification must be rejected as nonresponsive.

RESOLUTION OF DISPUTES

Disputes – Unless the Contract provides otherwise, disputes arising in the performance of this Contract which are not resolved by agreement of the parties

shall be decided in writing by the COUNTY Project Manager for the Contract. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the CONTRACTOR mails or otherwise furnishes a written appeal to the COUNTY Contract Administrator. In connections with any such appeal, the CONTRACTOR shall be afforded an opportunity to be heard and to offer evidence in support of its position.

The decision of the Contract Administrator shall be binding upon the CONTRACTOR and the CONTRACTOR shall abide by the decision.

Performance During Dispute – Unless otherwise directed by COUNTY, CONTRACTOR shall perform under the Contract while matters in dispute are being resolved.

Unless the Contract provides otherwise, jurisdiction of any controversies or legal problems arising out of this Contract, and any action involving the enforcement or interpretation of any rights hereunder, shall be exclusively in the state courts of the Seventeenth Judicial Circuit in Broward County, Florida, and venue for litigation arising out of this Contract shall be exclusively in such state courts, forsaking any other jurisdiction which either party may claim by virtue of its residency or other jurisdictional device. BY ENTERING INTO THIS CONTRACT, CONTRACTOR AND COUNTY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT.

LOBBYING

CONTRACTORS who apply or bid for an award of $100,000 or more shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any federal Contract, grant, or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-federal funds that takes place in connection with obtaining any federal award. Such disclosures are forwarded from tier to tier up to the COUNTY. **A Restrictions on Lobbying Certification is attached as Exhibit 7.**

CLEAN AIR

The Clean Air requirements apply to all Contracts exceeding $100,000, including indefinite quantities where the amount is expected to exceed $100,000 in any year.

a) CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act, as amended, 42 USC §7401, et seq. CONTRACTOR agrees to report each violation to Broward

County and agrees that COUNTY will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

b) CONTRACTOR further agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with federal assistance provided by FTA.

CLEAN WATER REQUIREMENTS

If this Contract is valued at $100,000 or more, CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251, et seq.

a) CONTRACTOR agrees to report each violation to COUNTY and agrees that COUNTY will, in turn, report each violation as required to assure notification to the FTA and the appropriate EPA Regional Office.

b) CONTRACTOR also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with federal assistance provided by FTA.

BONDING REQUIREMENTS

CONTRACTOR agrees to comply with the terms and conditions relating to bid guaranty, performance bond and payment bond ("Bonding Requirements") as set forth in the underlying Contract to which this FTA/USDOT Funding Supplement is attached. In the event that the underlying Contract involves a construction or facility improvement exceeding $100,000, and the underlying Contract: (1) does not contain specific Bonding Requirements, or (2) the Bonding Requirements do meet the minimum requirements set forth below, the following Bonding Requirements shall apply:

CONTRACTOR shall provide a bid guarantee from each Bidder equivalent to five percent (5%) of the bid price, a performance bond on the part of the CONTRACTOR for 100 percent (100%) of the Contract price and a payment bond on the part of the CONTRACTOR for 100 percent (100%) of the Contract price in the form and of a type acceptable by COUNTY.

DAVIS-BACON AND COPELAND ANTI-KICKBACK ACTS

If this purchase order or Contract involves a construction project over $2,000, the CONTRACTOR agrees to comply with Davis-Bacon and Copeland Act requirements at 40 USC 3141, et seq., and 18 USC 874. The requirements of both Acts are incorporated into a single clause (see 29 CFR 3.11) and are set forth in 29 CFR 5.5(a). Section 29 CFR 5.5(a) is reproduced in its entirety below:

a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of $2,000 which is entered into for the actual

construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in §5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency; *provided*, that such modifications are first approved by the Department of Labor):

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any Contractual relationship which may be alleged to exist between the CONTRACTOR and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; *provided*, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the CONTRACTOR and its Subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) a) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

b) If the CONTRACTOR and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within thirty (30) days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the thirty (30) day period that additional time is necessary.

c) In the event the CONTRACTOR, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within thirty (30) days of receipt and so advise the Contracting Officer, or will notify the Contracting Officer within the thirty (30) day period that additional time is necessary.

d) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the CONTRACTOR shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the CONTRACTOR does not make payments to a trustee or other third person, the CONTRACTOR may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *provided*, that the Secretary of Labor has found, upon the written request of the CONTRACTOR, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the CONTRACTOR to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding.

COUNTY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the CONTRACTOR under this Contract or any other Federal Contract with the same prime CONTRACTOR, or any other federally-assisted Contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime CONTRACTOR, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the CONTRACTOR or any Subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the Contract, Broward County may, after written notice to the CONTRACTOR, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the CONTRACTOR during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types

described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the CONTRACTOR shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. CONTRACTORS employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) a) The CONTRACTOR shall submit weekly for each week in which any Contract work is performed a copy of all payrolls to COUNTY if the agency is a party to the Contract, but if the agency is not such a party, the CONTRACTOR will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime CONTRACTOR is responsible for the submission of copies of payrolls by all Subcontractors. CONTRACTORS and Subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Federal Transit Administration if the agency is a party to the Contract, but if the agency is not such a party, the CONTRACTOR will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the COUNTY, the CONTRACTOR, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime CONTRACTOR to require a Subcontractor to provide addresses and social security numbers to the prime CONTRACTOR for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the CONTRACTOR or Subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

d) The falsification of any of the above certifications may subject the CONTRACTOR or Subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The CONTRACTOR or Subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of COUNTY or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the CONTRACTOR or Subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the CONTRACTOR, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and Trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first ninety (90) days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the CONTRACTOR as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a CONTRACTOR is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the CONTRACTOR's or Subcontractor 's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the CONTRACTOR will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work

performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate, who is not registered and participating in a training plan approved by the Employment and Training Administration, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the CONTRACTOR will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The CONTRACTOR shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this Contract.

(6) Subcontracts. The CONTRACTOR or Subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for the compliance by any Subcontractors or lower tier Subcontractor with all the Contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the Contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a CONTRACTOR and a Subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this Contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the CONTRACTOR (or any of its Subcontractors) and the Contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this Contract, the CONTRACTOR certifies that neither it (nor he or she) nor any person or firm who has an interest in the CONTRACTOR's firm is a person or firm ineligible to be awarded Government Contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government Contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

If this purchase order or Contract involves a construction project in excess of $100,000 or more, the CONTRACTOR shall comply with the Contract and Work Hours Safety Act, 40 USC 3701 and 29 CFR 5.5 (b) are reproduced below.

<u>As used in the paragraphs below, the terms laborers and mechanics include watchmen and guards.</u>

a) **Overtime requirements**. No CONTRACTOR or Subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times (1½)

the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.

b) **Violation**; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a) of this section, the CONTRACTOR and any Subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such CONTRACTOR and Subcontractor shall be liable to the United States (in the case of work done under Contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a) of this section, in the sum of ten dollars ($10.00) for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in paragraph (a) of this section.

c) **Withholding for unpaid wages and liquidated damages**. COUNTY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or Subcontractor under any such Contract or any other Federal Contract with the same prime CONTRACTOR, or any other federally-assisted Contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime CONTRACTOR, such sums as may be determined to be necessary to satisfy any liabilities of such CONTRACTOR or Subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b) of this section.

d) **Subcontracts**. The CONTRACTOR or Subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a) through (d) of this section and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for compliance by any Subcontractor or lower tier Subcontractor with the clauses set forth in paragraphs (a) through (d) of this section.

TRANSIT EMPLOYEE PROTECTIVE CONTRACTS

If this Contract involves transit operations performed by employees of a CONTRACTOR recognized by FTA to be a transit operator:

a) CONTRACTOR agrees to comply with the applicable transit employee protective requirements, as follows:

1) **General Transit Employee Protective Requirements** - To the extent that FTA determines that transit operations are involved, CONTRACTOR agrees to carry out the transit operations work on the underlying Contract

in compliance with terms and conditions determined by the U.S. Secretary of Labor to be fair and equitable to protect the interests of employees employed under this Contract and to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the letter of certification from the U.S. DOL to FTA applicable to the FTA Recipient's project from which Federal assistance is provided to support work on the underlying Contract. CONTRACTOR agrees to carry out that work in compliance with the conditions stated in that U.S. DOL letter. The requirements this subsection 1., however, do not apply to any Contract financed with Federal assistance provided by FTA either for projects for elderly individuals and individuals with disabilities authorized by 49 U.S.C. § 5310(a)(2), or for projects for nonurbanized areas authorized by 49 U.S.C. § 5311. Alternate provisions for those projects are set forth in subsections 2. and 3. of this clause.

2) **Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a)(2) for Elderly Individuals and Individuals with Disabilities** - If the Contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for the state and the public body subrecipient for which work is performed on the underlying Contract, CONTRACTOR agrees to carry out the Project in compliance with the terms and conditions determined by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333(b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the U.S. DOL's letter of certification to FTA, the date of which is set forth in the Grant Contract or Cooperative Contract with the state. CONTRACTOR agrees to perform transit operations in connection with the underlying Contract in compliance with the conditions stated in that U.S. DOL letter.

3) **Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Nonurbanized Areas** - If the Contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5311, CONTRACTOR agrees to comply with the terms and conditions of the Special Warranty for the Nonurbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

b) CONTRACTOR also agrees to include any applicable requirements in each subcontract involving transit operations financed in whole or in part with

Federal assistance provided by FTA.

FLY AMERICA

CONTRACTOR agrees to comply with 49 USC 40118 (the "Fly America" Act) in accordance with the General Services Administration regulations at 41 CFR part 301-10, which provide that recipients and subrecipients of federal funds and their CONTRACTORs are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. CONTRACTOR shall submit, if a foreign air carrier is used, an appropriate certification or memorandum adequately explaining why service by a U.S. Flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. CONTRACTOR agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

CARGO PREFERENCE

The Cargo Preference requirements apply to all Contracts and subcontracts involving equipment, materials, or commodities which may be transported by ocean vessels.

Cargo Preference - Use of United States-Flag Vessels - CONTRACTOR agrees:

a) to use privately-owned United States-Flag commercial vessels to ship at least fifty percent (50%) of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying Contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;

b) to furnish within twenty (20) working days following the date of loading for shipments originating within the United States or within thirty (30) working days following the date of leading for shipments originating outside the United States, a legible copy of a rated, "onboard" commercial ocean bill of lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the COUNTY (through CONTRACTOR in the case of a Subcontractor's bill of lading.);

c) to include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

DRUG AND ALCOHOL TESTING

If this Contract involves a safety-sensitive function on behalf of COUNTY, the CONTRACTOR agrees to participate in Broward County Transit Division's drug and alcohol testing program or agrees to establish and implement its own drug and alcohol testing program that complies with 49 CFR Part 655, produce any documentation necessary to establish its compliance with part 655, and permit any authorized representative of the USDOT or its operating administrations, the State Oversight Agency, or COUNTY, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Part 655 and review the testing process.

In the event CONTRACTOR subcontracts all or part of the transit service to a third party, a similar requirement including review and approval by the COUNTY's Contract Administrator must be included in any Contract.

CONTRACTOR further agrees to certify, prior to the commencement of services under this Contract or purchase order and annually thereafter, compliance with current FTA regulations, and to submit the Management Information System (MIS) reports before March 15 to the Director, Transit Division **(a model form for certifying compliance, Drug and Alcohol Testing Program Compliance Certification, is attached as Exhibit 8)**. To certify annual compliance, CONTRACTOR shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Contracts," which is published annually in the Federal Register.

PATENT AND RIGHTS IN DATA

If this Contract involves patent and rights in data requirements for federally-assisted research projects in which FTA finances in whole or in part the development of a product or information, CONTRACTOR agrees to be bound by the terms and conditions specified below.

CONTRACTS INVOLVING EXPERIMENTAL, DEVELOPMENTAL, OR RESEARCH WORK.

a) **Rights in Data** - The following requirements apply to each Contract involving experimental, developmental or research work:

1) The term "subject data" used in this clause means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject

data" does not include financial reports, cost analyses, and similar information incidental to contract administration.

2) The following restrictions apply to all subject data first produced in the performance of the Contract to which this Attachment has been added:

A) Except for its own internal use, CONTRACTOR may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the CONTRACTOR authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any Contract with an academic institution.

B) In accordance with 49 C.F.R. § 18.34 and 49 C.F.R. § 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for "Federal Government purposes," any subject data or copyright described in subsections (2)(b)1 and (2)(b)2 of this clause below. As used in the previous sentence, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.

1. Any subject data developed under that Contract, whether or not a copyright has been obtained; and

2. Any rights of copyright purchased by the COUNTY or CONTRACTOR using Federal assistance in whole or in part provided by FTA.

C) When FTA awards Federal assistance for experimental, developmental, or research work, it is FTA's general intention to increase transportation knowledge available to the public, rather than to restrict the benefits resulting from the work to participants in that work. Therefore, unless FTA determines otherwise, the COUNTY and CONTRACTOR performing experimental, developmental, or research work required by the underlying Contract to which this Attachment is added agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of that Contract, or a copy of the subject data first produced under the Contract for which a copyright has not been obtained. If the experimental, developmental, or research work, which is the subject of the underlying Contract, is not completed for any reason whatsoever, all data developed under that Contract shall become subject data as

defined in subsection (a) of this clause and shall be delivered as the Federal Government may direct. This subsection (c), however, does not apply to adaptations of automatic data processing equipment or programs for the COUNTY or CONTRACTOR's use whose costs are financed in whole or in part with Federal assistance provided by FTA for transportation capital projects.

D) CONTRACTOR agrees to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by CONTRACTOR of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that Contract. CONTRACTOR shall not be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.

E) Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.

F) Data developed by the COUNTY or CONTRACTOR and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying Contract to which this Attachment has been added is exempt from the requirements of subsections (b), (c), and (d) of this clause, provided that the COUNTY or CONTRACTOR identifies that data in writing at the time of delivery of the Contract work.

G) Unless FTA determines otherwise, CONTRACTOR agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

3) Unless the Federal Government later makes a contrary determination in writing, irrespective of CONTRACTOR's status (i.e., a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), CONTRACTOR agrees to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Contracts," 37 C.F.R. Part 401.

4) CONTRACTOR also agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

b) **Patent Rights** - The following requirements apply to each Contract involving experimental, developmental, or research work:

1) General - If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under the underlying Contract, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the COUNTY and CONTRACTOR agree to take actions necessary to provide immediate notice and a detailed report to the party at a higher tier until FTA is ultimately notified.

2) Unless the Federal Government later makes a contrary determination in writing, irrespective of CONTRACTOR's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), the COUNTY and CONTRACTOR agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Contracts," 37 C.F.R. Part 401.

3) CONTRACTOR also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

PRIVACY ACT

The following requirements apply to the CONTRACTOR and its employees that administer any system of records on behalf of the Federal Government under any Contract:

a) CONTRACTOR agrees to comply with, and assures the compliance of its employees with, information restrictions and other applicable requirements of the Privacy Act of 1974, 5 USC 552a.

Among other things, CONTRACTOR agrees to obtain the express consent of the Federal Government before CONTRACTOR or its employees operate a system of records on behalf of the Federal Government. CONTRACTOR understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of the Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying Contract.

b) CONTRACTOR also agrees to include these requirements in each subcontract to administer any system of records on behalf of the Federal Government financed in whole or in part with federal assistance provided by FTA.

CHARTER BUS

If this is an Operational Service Contract, CONTRACTOR agrees to comply with 49 USC 5323(d) and 49 CFR Part 604, which provide that recipients and subrecipients of FTA assistance are prohibited from providing charter service using federally-funded equipment or facilities if there is at least one private charter operator willing and able to provide the service, except under one of the exceptions at 49 CFR Part 604.

SCHOOL BUS REQUIREMENTS

If this is an Operational Service Contract, pursuant to 49 USC 5323(f) and 49 CFR Part 605, recipients and subrecipients of FTA assistance may not engage in school bus operations exclusively for the transportation of students and school personnel in competition with private school bus operators unless qualified under specified exemptions. When operating exclusive school bus service under an allowable exemption, recipients and subrecipients may not use federally-funded equipment, vehicles, or facilities.

BUS TESTING

The Bus Testing requirements pertain only to the acquisition of Rolling Stock/Turnkey. If this Contract pertains to the acquisition of rolling stock/turnkey, the CONTRACTOR manufacturer agrees to certify, prior to commencement of services under this Contract, to comply with 49 USC A5323(c) and FTA's implementing regulations at 49 CFR Part 665, and shall perform the following:

a) A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to COUNTY at a point in the procurement process specified by COUNTY which will be prior to COUNTY's final acceptance of the first vehicle.

b) A manufacturer who releases a report under paragraph a. above shall provide notice to the operator of the testing facility that the report is available to the public.

c) If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to COUNTY prior to recipient's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.

d) If the manufacturer represents that the vehicle is "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

A Bus Testing Compliance Certification is attached as Exhibit 9.

PRE-AWARD AND POST-DELIVERY AUDIT REQUIREMENTS

If this Contract pertains to the acquisition of rolling stock, the CONTRACTOR agrees to comply with 49 USC §5323(m) and FTA's implementing regulation at 49 CFR Part 663 and to submit the following certifications:

a) Buy America Requirements. The CONTRACTOR shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Bidder/Offeror certifies compliance with Buy America, it shall submit documentation which lists: 1) component and subcomponent parts of the rolling stock to be purchased, identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

b) Solicitation Specification Requirements. CONTRACTOR shall submit evidence that it will be capable of meeting the bid specifications.

c) Federal Motor Vehicle Safety Standards (FMVSS). CONTRACTOR shall submit: 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS; or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

A Pre-Award and Post-Delivery Audit Requirements Certification is attached as Exhibit 10.

SEISMIC SAFETY

If this Contract pertains to the construction of new buildings or additions to existing buildings, CONTRACTOR agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations at 49 CFR Part 41, and will certify compliance to the extent required by the regulation. CONTRACTOR also agrees to ensure that all work performed under this Contract, including work performed by a Subcontractor, is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project.

TRANSIT VEHICLE MANUFACTURER (TVM) CERTIFICATION

If this Contract involves the procurement of transit vehicles, the CONTRACTOR must obtain from each Transit Vehicle Manufacturer (TVM), distributor, or dealer, and submit with its bid, a TVM certification stating that, as a condition of being authorized to bid on transit vehicle procurements funded by FTA, the TMV certifies that it has complied with the requirements of 49 CFR 26.49, by submitting a current annual DBE Goal to the FTA. **A Transit Vehicle Manufacturer (TVM) Certification of Compliance is attached as Exhibit 11**.

NATIONAL ITS ARCHITECTURE

If this Contract involves an Intelligent Transportation System project (ITS), CONTRACTOR agrees to conform, to the extent applicable, to the National Intelligent Transportation Systems (ITS) Architecture and Standards as required by SAFETEA LU Section 5307, Chapter, 23 U.S.C. section 512 note, and comply with FTA Notice, "FTA National ITS Architecture Policy on Transit Projects, " 66 Fed. Reg. 1455 et seq., January 8, 2001, and to any subsequent further implementing directives, except to the extent FTA determines otherwise in writing.

ACCESS FOR INDIVIDUALS WITH DISABILITIES

CONTRACTOR agrees to comply with 49 U.S.C. § 5301(d), which acknowledges that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation, and that special efforts must be made to plan and assure that they do have similar access. CONTRACTOR also agrees to comply with all applicable provisions of Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of disability in the administration of programs or activities receiving Federal financial assistance; with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101, et. seq., which requires that accessible facilities and services be made available to individuals with disabilities; with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151, et seq., which requires that buildings and public accommodations be accessible to individuals with disabilities; and with other laws and amendments thereto pertaining to access for individuals with disabilities that may be applicable. In addition, CONTRACTOR agrees to comply with applicable implementing Federal regulations and any later amendments thereto, and agrees to follow applicable Federal implementing directives. Among these regulations and directives are:

a) U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F. R. Part 37;

b) U.S. DOT regulations, "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;

c) Joint U.S. Architectural and Transportation Barriers Compliance Board (U.S. ATBCB)/U.S. DOT regulations, "Americans With Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;

d) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;

e) U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;

f) U.S. General Services Administration (U.S. GSA) regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;

g) U.S. EEOC, "Regulations to Implement the Equal Employment Provisions of the American with Disabilities Act," 29 C.F.R. Part 1630;

h) U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F;

i) U.S. ATBCB regulations, "Electronic and Information Technology Accessibility Standards," 36 C.F.R. Part 1194;

j) FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609; and

k) Federal civil rights and nondiscrimination directives implementing those Federal laws and regulations, except to the extent the Federal Government determines otherwise in writing.

DDS/SVT/dac
FTA Funding Supplement 4-8-13

EXHIBIT 1: Letter of Intent

OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT

LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND DISADVANTAGED BUSINESS ENTERPRISE (DBE) / AIRPORT CONCESSIONS DISADVANTAGED BUSINESS ENTERPRISE (ACDBE) SUBCONTRACTOR/SUPPLIER
(Form to be completed and signed for each DBE/ACDBE firm)

Solicitation Number:	**Project Title:**

Bidder/Offeror Name: _____

Address: _____ City: _____ State: _____ Zip: _____

Authorized Representative: _____ Phone: _____

DBE/ACDBE Subcontractor/Supplier Name:

Check one: Address: _____

DBE City: _____ State: _____ Zip: _____ Phone: _____

ACDBE Authorized Representative: _____

A. This is a letter of intent between the bidder/offeror on this project and a DBE/ACDBE firm for the DBE/ACDBE to perform subcontracting work on this project, consistent with Title 49 CFR Parts 26 or 23 as applicable.
B. By signing below, the bidder/offeror is committing to utilize the above-named DBE/ACDBE to perform the work described below.
C. By signing below, the above-named DBE/ACDBE is committing to perform the work described below.
D. By signing below, the bidder/offeror and DBE/ACDBE affirm that if the DBE/ACDBE subcontracts any of the work described below, it may only subcontract that work to another DBE/ACDBE if it wishes to receive DBE/ACDBE credit for said work.

Work to be performed by DBE/ACDBE Firm			
Description	NAICS*	DBE/ACDBE Contract Amount†	DBE/ACDBE Percentage of Total Project Value

AFFIRMATION: I hereby affirm that the information above is true and correct.

Bidder/Offeror Authorized Representative

_____
(Signature) (Title) (Date)

DBE/ACDBE Subcontractor/Supplier Authorized Representative

_____
(Signature) (Title) (Date)

* Visit http://www.census.gov/eos/www/naics/ to search. Match type of work with NAICS code as closely as possible.
† To be provided only when the solicitation requires that bidder/offer include a dollar amount in its bid-offer.

In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.

DBE ACDBE Letter of Intent - Rev. January 2013

EXHIBIT 2: Application for Evaluation of Good Faith Effort

APPLICATION FOR EVALUATION OF GOOD FAITH EFFORT
PURSUANT TO TITLE 49 CFR PARTS 23 AND 26

SOLICITATION NO.: _____

Please check one of the following to indicate the program goal on this solicitation: ☐ ACDBE ☐ DBE

PROJECT NAME: _____

ADDRESS: _____

TELEPHONE: _____ FAX: _____

The undersigned representative of the prime contractor affirms that his/her company has contacted Disadvantaged Business Enterprise (DBE)/ Airport Concessions Disadvantaged Business Enterprise (ACDBE) certified firms in good faith effort to meet the DBE or ACDBE goal for this solicitation but has not been able to meet the goal. Consistent with the requirements of Title 49 CFR Part 26, Appendix A, the prime contractor hereby submits documentation (attached to this form) of good faith efforts made and requests to be evaluated under these requirements.

The prime contractor understands that a determination of good faith effort to meet the contract goal is contingent on both the information provided by the prime contractor as an attachment to this application and the other factors listed in Appendix A, of Title 49 CFR Part 26, as those factors are applicable with respect to this solicitation. The prime contractor acknowledges that the determination of good faith effort is made by the Director of the Office of Economic and Small Business Development, as the Disadvantaged Business Enterprise Liaison Officer (DBELO), in keeping with federal requirements.

SIGNATURE: _____

PRINT NAME/ TITLE: _____

DATE: _____

OESBD Compliance Form DBE/ACDBE GFE 031413

EXHIBIT 3: Monthly DBE Utilization Report

OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT
MONTHLY DBE UTILIZATION REPORT

Report No. _____

CONTRACT#:	**CONTRACT AMT.:**	**DATE FORM SUBMITTED:**
PROJECT TITLE:		**PROJECT COMPLETION DATE:**
PRIME CONTRACTOR:	**PERIOD ENDING:**	**AMT. PAID TO PRIME:**
CONTACT PERSON:	**TELEPHONE #: ( )**	**FAX #: ( )**

SUBCONTRACTING INFORMATION
TO BE SUBMITTED MONTHLY TO BROWARD COUNTY OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT

DBE Subcontractor	Address	Description of Work	Original Agreed Price	Revised Agreed Price	% of Work Completed To Date	Amt. Paid This Period	Amt. Paid To Date	Gender		Ethnic Category				
								M	F	B	H	A	NA	W
Total Amt. Paid to DBE Firms														

NON-DBE Subcontractor	Address	Description of Work	Original Agreed Price	Revised Agreed Price	% of Work Completed To Date	Amt. Paid This Period	Amt. Paid To Date	Gender		Ethnic Category				
								M	F	B	H	A	NA	W
Total Amt. paid to Non-DBE Firms														

Black American – B; Hispanic American – H; Asian American – A; Native American – NA; Non-Minority Woman – W

I attest that the information submitted in this report is in fact true and correct to the best of my knowledge

Signature	*Title*	*Date*

Note: The information provided herein is subject to verification by the Office of Economic and Small Business Development.

OESBD Compliance Form DBEMUR 020113

EXHIBIT 4: Final DBE Utilization Report

OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT
FINAL DBE UTILIZATION REPORT
(To be submitted with the final invoice)

Report No. _____

CONTRACT#:	**CONTRACT AMT.:**	**DATE FORM SUBMITTED:**
PROJECT TITLE:		**PROJECT COMPLETION DATE:**
PRIME CONTRACTOR:	**PERIOD ENDING:**	**AMT. PAID TO PRIME:**
CONTACT PERSON:	**TELEPHONE #: ( )**	**FAX #: ( )**

SUBCONTRACTING INFORMATION
All Payments made to DBE Firms must be reported on this form.

DBE Subcontractor	Address	Description of Work	Original Agreed Price	Revised Agreed Price	% of Work Completed To Date	Amt. Paid This Period	Amt. Paid To Date	Gender		Ethnic Category				
								M	F	B	H	A	NA	W
Total Amt. Paid to DBE Firms														

NON-DBE Subcontractor	Address	Description of Work	Original Agreed Price	Revised Agreed Price	% of Work Completed To Date	Amt. Paid This Period	Amt. Paid To Date	Gender		Ethnic Category				
								M	F	B	H	A	NA	W
Total Amt. paid to Non-DBE Firms														

Black American – B; Hispanic American – H; Asian American – A; Native American – NA; Non-Minority Woman – W

I attest that the information submitted in this report is in fact true and correct to the best of my knowledge

Signature	*Title*	*Date*

Note: The information provided herein is subject to verification by the Office of Economic and Small Business Development.

OESBD Compliance Form DBEMUR 020113

EXHIBIT 5: Government-Wide Debarment and Suspension (Nonprocurement) Certification

IF THIS CONTRACT OR PURCHASE ORDER HAS A VALUE OF $25,000 OR MORE, THIS PROCUREMENT IS A COVERED TRANSACTION FOR PURPOSES OF 49 CFR PART 29.

This Contract is a covered transaction for purposes of 49 CFR Part 29. As such, the CONTRACTOR is required to verify that none of the CONTRACTOR, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The CONTRACTOR is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier-covered transaction it enters into.

By signing and submitting its bid or proposal, the Bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by COUNTY. If it is later determined that the Bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to COUNTY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Bidder or proposer agrees to comply with the requirements of 49 CFR 29, Subpart C, while this offer is valid and throughout the period of any Contract that may arise from this offer. The Bidder or proposer further agrees to include a provision requiring such compliance in its lower tier-covered transactions.

_____ _____
(Date) Authorized Signature

_____
Print Name and Title

_____
Name of Contractor

EXHIBIT 6: Buy America Certification

FOR PROCUREMENTS OF STEEL, IRON, AND MANUFACTURED PRODUCTS (INCLUDING CONSTRUCTION CONTRACTS, MATERIALS AND SUPPLIES, AND ROLLING STOCK) OVER $100,000

A. STEEL, IRON OR MANUFACTURED PRODUCTS

If this Contract or purchase order is valued in excess of $100,000 and involves the **procurement of steel, iron, or manufactured products**, the Bidder or offeror hereby certifies that it**:**

☐ Will meet the requirements of 49 USC 5323(j)(1) and the applicable regulations in 49 CFR part 661.5.

☐ Cannot meet the requirements of 49 USC 5323(j)(1) and 49 CFR part 661.5, but it may qualify for an exception pursuant to 49 USC 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 CFR 661.

B. BUSES, OTHER ROLLING STOCK, AND ASSOCIATED EQUIPMENT

If this Contract or purchase order is valued in excess of $100,000 and involves the **procurement of buses, other rolling stock, and associated equipment**, the Bidder or offeror certifies that it**:**

☐ Will comply with the requirements of 49 USC 5323(j)(2)(C) and the regulations at 49 CFR part 661.11.

☐ Cannot comply with the requirements of 49 USC 5323(j)(2)(C) and 49 CFR 661.11, but may qualify for an exception pursuant to 49 USC 5323(j)(2)(A), 5323(j) (2)(B), or 5323(j)(2)(D), and 49 CFR 661.7.

_____ _____
(Date) Authorized Signature

_____
Print Name and Title

_____
Name of Contractor

Note: This Buy America certification must be submitted to Broward County with all bids or offers on FTA-funded Contracts involving construction or the acquisition of goods or rolling stock, except those subject to a general waiver. General waivers are listed in 49 CFR 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, microcomputer equipment, software, and small purchases (currently less than $100,000) made with capital, operating, or planning funds.

EXHIBIT 7: Restrictions On Lobbying Certification

For Procurements of $100,000 or More

The undersigned certifies, to the best of his or her knowledge and belief, that:
1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal Contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal Contract, grant, loan, or cooperative agreement.

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence to an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal Contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying,"

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and Contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The undersigned certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the undersigned understands and agrees that the provisions of 31 USC A3801, et seq., apply to this certification and disclosure, if any.

_____ _____
(Date) Authorized Signature

_____
Print Name and Title

_____
Name of Contractor

EXHIBIT 8: Drug and Alcohol Testing Program Compliance Certification

FOR TRANSIT OPERATIONAL SERVICE CONTRACTS INVOLVING THE OPERATION OF A TRANSIT SERVICE, OR MAINTAINING, REPAIRING, OVERHAULING, AND REBUILDING REVENUE SERVICE VEHICLES OR EQUIPMENT (ENGINES AND PARTS) USED IN REVENUE SERVICE, OR BODY WORK, OR CONTRACTS FOR SECURITY PERSONNEL THAT CARRY FIREARMS.

The undersigned certifies that CONTRACTOR, and its SUBCONTRACTORS as required, has established and implemented an anti-drug and alcohol prevention program in accordance with 49 CFR Part 655, "Prevention of Alcohol Misuse and Prohibited Drug Use in Transit Operations."[1]

The undersigned further agrees to produce any documentation necessary to establish its compliance with 49 CFR Part 655, and to permit any authorized representative of the United States Department of Transportation or its operating administrations, the State Oversight Agency (the Florida Department of Transportation), or COUNTY, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Part 655 and to review the testing process.

The undersigned further agrees to certify annually its compliance with Part 655 before March 15 and to submit the Management Information System (MIS) reports no later than February 15) to COUNTY.

To certify compliance, CONTRACTOR shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

_____ _____
(Date) Authorized Signature

_____
Print Name and Title

_____
Name of Contractor

[1] The Federal Transit Administration (FTA) – mandated drug and alcohol testing program is separate from and in addition to the provisions of the Drug-Free Workplace Act (DFWA).

EXHIBIT 9: Bus Testing Compliance Certification

FOR ALL PROCUREMENTS OF BUSES/ROLLING STOCK/TURNKEY

The undersigned (CONTRACTOR/manufacturer) certifies that the vehicle offered in this procurement complies with 49 USC A5323(c) and FTA's implementing regulation at 49 CFR Part 665.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with federal financial assistance may subject the undersigned to civil penalties as outlined in the U.S. Department of Transportation's regulation on Program Fraud Civil Remedies, 49 CFR Part 31. In addition, the undersigned understands that FTA may suspend or debar a manufacturer under the procedures in 49 CFR Part 29.

_____ _____
(Date) Authorized Signature

_____
Print Name and Title

_____
Name of Contractor

EXHIBIT 10: Pre-Award and Post-Delivery Audit Requirements Certification

FOR PROCUREMENTS OF BUSES, OTHER ROLLING STOCK, OR ASSOCIATED EQUIPMENT OVER $100,000

Check one:

☐ The Bidder hereby certifies that it **will comply** with the requirements of 49 USC 5323(j) (2)(C), Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 CFR 661.11.

☐ The Bidder hereby certifies that it **cannot comply** with the requirements of 49 USC 5323(j)(2)(C) and Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, but may qualify for an exception to the requirements consistent with 49 USC Sections 5323(j)(2)(B) or 5323(j)(2)(D), Sections 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act of 1982 as amended, and regulations in 49 CFR 661.7.

_____ _____
(Date) Authorized Signature

_____
Print Name and Title

_____
Name of Contractor

Note: This certification must be submitted with each bid or offer exceeding the small purchase threshold for federal assistance programs, currently set at $100,000.

EXHIBIT 11: Transit Vehicle Manufacturer (TVM) Certification of Compliance with Sub Part D, Part 26

FOR ALL BUSES/ROLLING STOCK PROCUREMENTS

This procurement is subject to the provisions of Section 26.49 of 49 CFR Part 26. Accordingly, as a condition of permission to bid, the following certification must be completed and submitted with the bid. A bid which does not include the certification will not be considered.

Transit Vehicle Manufacturer (TVM) CERTIFICATION

_____, a TVM, herby certifies that it has complied with the
(Name of Firm)

requirements of Section 26.49 of 49 CFR Part 26 by submitting a current DBE Goal to the FTA. The goals apply to fiscal year _____ and have been approved or not disapproved by the FTA.
(Date of Fiscal Year)

_____, hereby certifies that the manufacturer of the transit vehicle
(Name of Firm)

to be supplied _____ has complied with the above- referenced
(Name of Manufacturer)

requirements of Section 26.49 of 49 CFR Part 26.

_____ _____
(Authorized Signature) (Date)

_____
Print Name and Title

Company: _____

Telephone No.: _____

Fax No.: _____